TEXAS DEPARTMENT OF WATER RESOURCES

REPORT 275

CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN ESTUARIES OF TEXAS OCTOBER 1975—SEPTEMBER 1976

By

William B. Lind
U.S. Geological Survey

This report was prepared by the U.S. Geological Survey under cooperative agreement with the Texas Department of Water Resources.

May 1983

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ABSTRACT

This is one of a series of annual basic-data reports that have been prepared by the U.S. Geological Survey since 1970 presenting results of systematic measurements in principal estuaries along the Texas coast. Approximately 170 designated data-collection sites were visited during the 1976 water year. The report contains field measurements of dissolved oxygen, specific conductance, temperature, pH, transparency, and turbidity at several points along a vertical at each site. Also listed are the results of laboratory analyses of samples from selected sites, including the principal inorganic ions, biochemical oxygen demand, phenols, organic carbon, insecticides and herbicides, ammonium, nitrite, nitrate, phosphate, and other selected ions such as aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, nickel, strontium, and zinc. Water and sediment sampling is represented. Objectives of the continuing investigation are to define: the occurrence, source, and distribution of nutrients; the physical, organic, and inorganic water-quality constituents and their areal distribution and time variations; the chemical and physical characteristics of gulf water that enters the estuaries; the occurrence, quality, quantity, and dispersion of drainage entering the estuarine systems; and the current patterns, directions, and rates of water movement.

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CHEMICAL AND PHYSICAL CHARACTERISTICS OF WATER IN ESTUARIES OF TEXAS OCTOBER 1975—SEPTEMBER 1976

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William B. Lind
U.S. Geological Survey

INTRODUCTION

Purpose and Scope of the Investigation

The Texas Water Plan (Texas Water Development Board, 1968) proposes development and utilization of water resources in Texas and includes provision for the use and preservation of water in the estuaries of the State. Management of estuarine waters requires knowledge of the hydrodynamics and of the continuing changes in the chemical and physical characteristics of water in the estuaries.

In September 1967, the U.S. Geological Survey and the Texas Water Development Board (now Texas Department of Water Resources) began a cooperative water-resources investigation of the principal estuaries along the Texas coast (Figure 1) except the Rio Grande estuary, which is under the jurisdiction of the International Boundary and Water Commission, United States and Mexico.

The objectives of the investigation are to define: (1) the occurrence, source, and distribution of nutrients; (2) the physical, organic, and inorganic water-quality constituents and their areal distribution and time variations; (3) the chemical and physical characteristics of gulf water that enters the estuaries; (4) the occurrence, quality, quantity, and dispersion of drainage entering the estuarine systems; and (5) the current patterns, directions, and rates of water movement.

The coastal waters of Texas are not classical estuaries, but are similar to them in ecosystems and mixing phenomena. A description of various types of estuaries is presented in "Estuaries," edited by Lauff (1967, p. 3-11). The term estuary, as used in this report, refers to concomitant water bodies in which streamflow mixes with seawater.

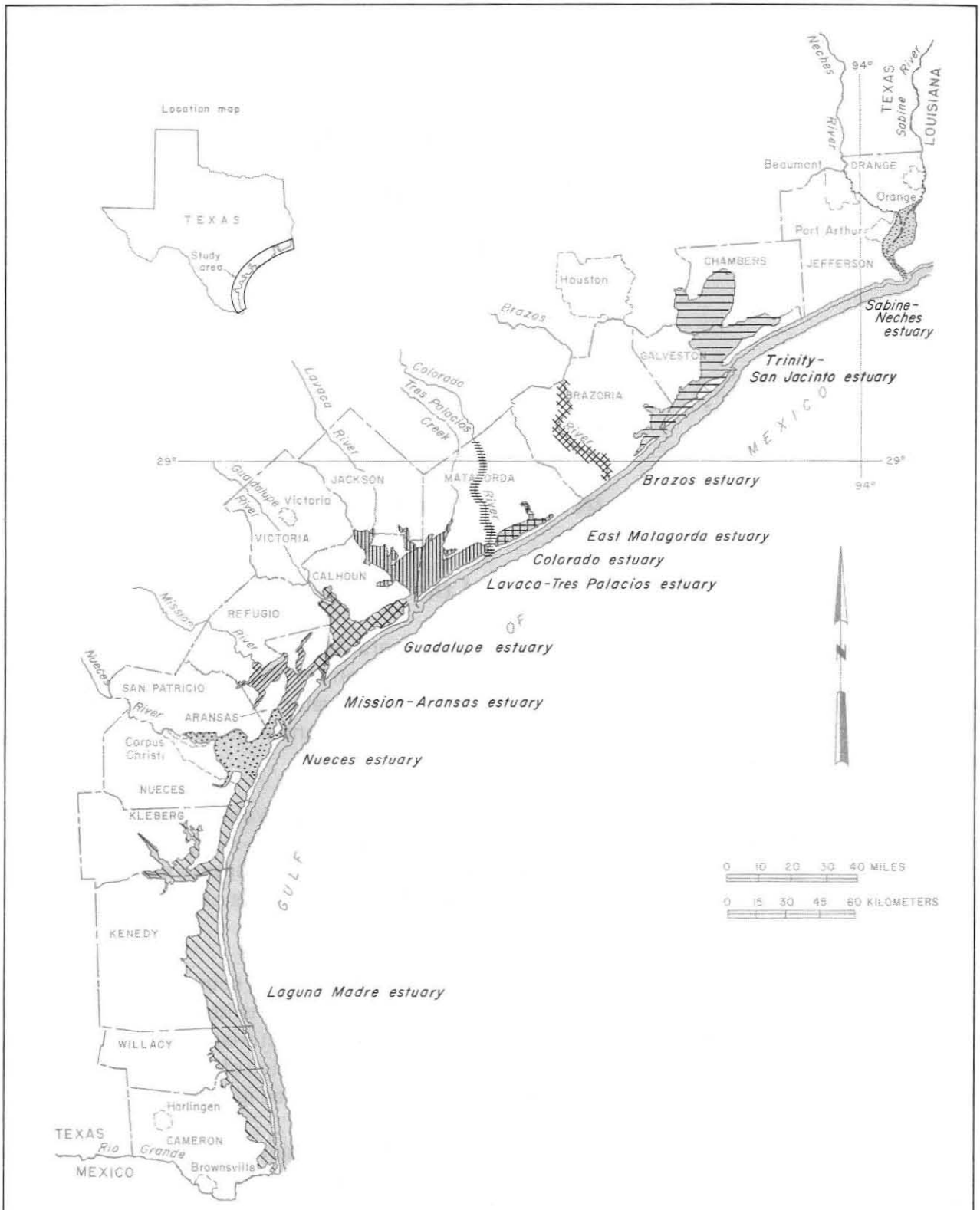

Figure 1
Locations of the Estuaries

Base from Official State Highway Map of Texas, 1971

Status of the Project

The first three objectives of the project are being met by a three-phased water-quality data-collection program of: (1) reconnaissance for establishment of an optimum data-collection network; (2) repetitive surveys throughout this network to determine the general chemical and physical characteristics of the estuarine systems; and (3) continued data collection at a reduced number of sites or at a reduced frequency to maintain definition of the chemical and physical characteristics of each estuarine system and of the relationship between systems. The first two phases have been completed and the third phase began in September 1973.

The fourth objective of the project is being met by data collection at six continuous streamflow-measuring stations and 11 stations at which monthly data on streamflow and water quality are obtained. The dispersion of water entering an estuary is being documented under the data-collection activities to meet the first three objectives.

The fifth objective of the project is being met by short-duration, intensive studies of inflow. Two such studies will be completed for each estuary. The studies on the Guadalupe estuary were completed in November 1970 and August 1973; the studies on the Lavaca-Tres Palacios estuary were completed in March 1971 and October 1972; the studies on the Mission-Aransas and Nueces estuaries were completed in November 1971 and May-June 1974; the studies on the Sabine-Neches estuary were completed in September 1974 and July 1975; and one study on the Trinity-San Jacinto estuary was completed in July 1976. These studies are providing data on inflow and exchange of water through the passes.

Previous and Related Reports

This report, which presents data collected during water year 1976, is one of a series of annual basic-data reports that have been prepared since 1970 (Hahl and Ratzlaff, 1970, 1972, 1973, 1975; Ratzlaff, 1976; Lind and Ratzlaff, 1979; and Lind, 1980). A report by Grozier and others (1968, p. 47-61) includes data collected during flooding caused by Hurricane Beulah.

Metric Conversions

Metric equivalents of English units of measurements are given in parentheses in the text. The English units used in this report may be converted to metric units by using the following conversion factors:

From English units	Multiply by	To obtain metric units
inch	2.54	centimeter (cm)
foot	.3048	meter (m)
mile	1.609	kilometer (km)
square mile	2.590	square kilometer (km^2)
cubic foot per second (ft^3/s)	.02832	cubic meter per second (m^3/s)

Acknowledgments

The U.S. Army Corps of Engineers (Galveston District), the Texas Parks and Wildlife Department, and the Texas Department of Water Resources provided data and field assistance. Many private citizens and commercial fishermen furnished information on historical changes and existing conditions in the estuaries.

DATA-COLLECTION METHODS

Approximately 170 data-collection sites were visited during the 1976 water year. About 50 percent of these sites are located adjacent to or between navigation aids, bridge piers, power poles, survey platforms, well structures, or other landmarks and can be reoccupied exactly. About 19 percent of the sites are close to shore features or reefs and are located by onboard radar or by compass heading and distance from the feature and water depth at the site; these sites can be reoccupied within 100 feet (30.5 m). About 31 percent of the sites are remote to any reference. They are reached by traveling from a known landmark at a known speed on a predetermined compass course. Verification of site location is made by checking the alignment of one or more distant landmarks by visual observation or by onboard radar. These sites can be reoccupied within 0.25 mile (0.4 km).

At each data-collection site, field data are collected from several points along a vertical. Samples for laboratory analyses are collected from a predetermined number of data-collection sites and at other sites in the network when significant changes in field data indicate a need for additional samples.

The properties or constituents that are measured in the field are dissolved oxygen (DO), specific conductance, temperature, pH, transparency by Secchi disk, and turbidity. Analyses conducted in the laboratory include the principal inorganic ions, biochemical oxygen demand (BOD), phenols, total organic carbon (TOC), dissolved organic carbon (DOC), suspended organic carbon (SOC), chlorophyll, insecticides and herbicides, ammonium, nitrite, nitrate, total phosphate, and other selected ions such as aluminum, arsenic, cadmium, chromium, cobalt, copper, iron, lead, lithium, manganese, mercury, nickel, strontium, and zinc.

Field Instruments

The field instruments used in this investigation are given in the following table. The mention of the names of the manufacturers of the instruments is for identification purposes only and does not constitute an endorsement by the U.S. Geological Survey.

Parameter measured	Instrument	Model	Manufacturer
pH, dissolved oxygen, temperature, specific conductance	Surveyor	6	Hydrolab Corporation
pH	Specific ion meter	401	Orion Research

Parameter measured	Instrument	Model	Manufacturer
pH	pH meter	7417	Leeds & Northrup
Dissolved oxygen	Oxygen meter	54	Yellow Springs Instruments
Specific conductance	Solubridge	RB-3	Industrial Instruments
Temperature	Research thermometer	ET-100 Marine	Applied Research
Turbidity	Colorimeter	DR	Hach Chemical

The instruments used for pH measurements were calibrated daily during each water-quality survey by using three standards: pH 4.0, 7.0, and 10.0. The dissolved-oxygen meters were calibrated at least twice daily by using the oxygen-saturation data compiled by the American Public Health Association and others (1971, p. 480). The conductivity meters were calibrated periodically by using at least two standards in the conductivity ranges of the instruments. The electrical thermometer was calibrated weekly. The colorimeter was calibrated at each site. In addition, the pH and DO calibrations were rechecked at the end of each day.

Treatment of Samples

All water samples except those for TOC, DOC, SOC, insecticide, and herbicide analyses were collected in plastic throwaway bottles. The BOD, TOC, phenol, and nutrient samples were chilled to about 1°C, stored in an ice chest, and shipped to the laboratory as soon as possible. Phosphoric acid (to pH 4) and copper sulfate were added to the phenol sample before chilling.

Samples for SOC and DOC analyses were collected in specially treated glass bottles and were filtered through 0.45-micrometer silver filters in the field. Residues on the filters for SOC analyses and filtrates for DOC analyses were chilled to about 1°C and shipped to the laboratory as soon as possible.

Chlorophyll samples were filtered through 0.45-micrometer membrane filters and the residues on the membrane filters were kept chilled until they could be analyzed.

Water samples for the principal dissolved inorganic anions, except carbonate and bicarbonate, were filtered through 0.45-micrometer membrane filters. Water samples for the principal dissolved inorganic cations, heavy metals, and other selected trace constituents, were filtered through 0.45-micrometer membrane filters into bottles prewashed with 10-percent nitric acid. Two milliliters of concentrated nitric acid were added to each liter of filtrate.

Suspended-sediment samples and bottom-sediment samples to be analyzed for herbicides and insecticides were collected in specially treated glass bottles, kept cool, and shipped air mail to the laboratory as soon as possible. Most herbicide and some insecticide samples were depth-integrated water samples; however, most insecticide and some herbicide samples were taken from bottom sediments. Most sediment samples were collected directly into a weighted sample bottle.

QUALITY OF WATER IN THE ESTUARIES

Sabine-Neches Estuary

The Sabine-Neches estuary, which has an area of about 100 square miles (259 km^2), consists of the tidal parts of the Sabine and Neches Rivers and other tributaries, Sabine Lake, the Sabine-Neches Canal, the Port Arthur Canal, parts of the Intracoastal Waterway, and Sabine Pass (Figure 2). Water depth at mean low water is greater than 40 feet (12.2 m) in dredged parts of the rivers, canals, and pass; about 15 feet (4.6 m) in the Intracoastal Waterway; and generally about 10 feet (3.0 m) in Sabine Lake.

Water-quality data (Table 1) were collected during October 1975 and February, April, June, July, and August 1976.

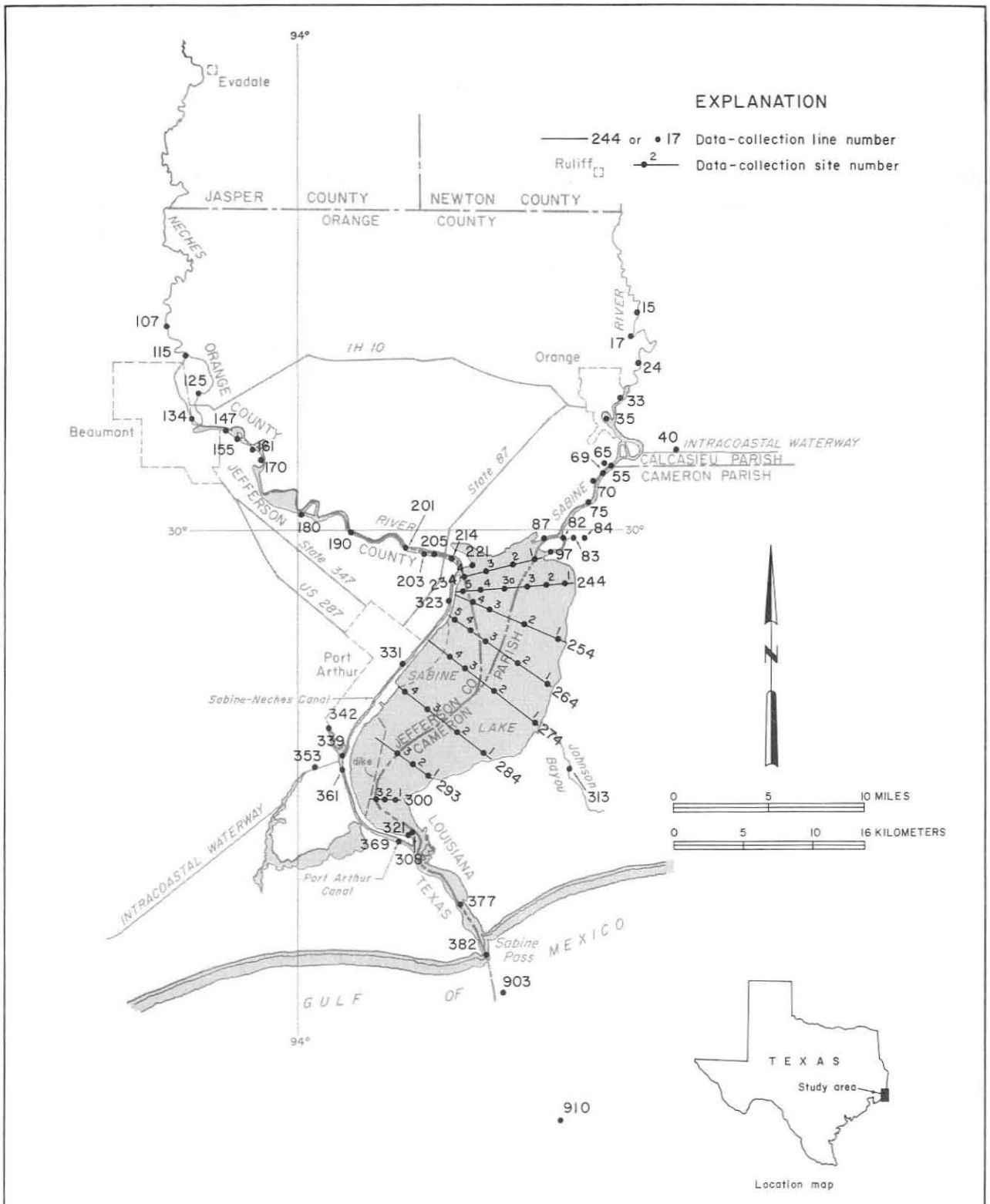

Figure 2

Data-Collection Sites in the Sabine-Neches Estuary

Base by U.S. Geological Survey, 1956

TABLE 1A--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 15					
OCT 21, 75	1555	2	.3	1600	21.2	7.2	6.8	76	--	60
			1.5	1600	21.0	7.2	6.7	74	--	--
			3.0	2000	20.5	7.1	6.3	70	--	--
			4.6	9000	22.0	7.1	3.5	41	--	--
			6.7	19000	23.1	7.0	.7	8	--	--
FEB 02, 76	1650	2	.3	100	13.9	6.8	7.0	67	30.	--
			3.0	110	14.0	6.8	6.9	66	30.	--
			6.1	120	14.8	6.9	6.6	65	30.	--
			9.1	180	15.0	7.2	6.2	61	500.	--
APR 13, 76	0945	2	.3	160	20.9	6.8	8.1	90	80.	55
			3.0	170	20.9	7.0	8.0	89	20.	--
			6.1	170	20.8	7.2	8.3	92	20.	--
			9.1	180	21.8	7.8	9.0	102	70.	--
JUN 08, 76	1505	2	.3	120	24.0	6.5	6.2	76	50.	50
			1.5	120	24.0	6.5	6.0	73	50.	--
			4.6	110	24.2	6.5	6.0	73	40.	--
			7.6	120	25.0	6.6	6.0	74	65.	--
			11.3	120	26.0	6.7	5.9	74	85.	--
AUG 17, 76	1105	2	.3	160	28.8	7.0	6.3	83	0.	41
			1.5	160	28.8	6.9	6.1	80	10.	--
			4.6	170	28.4	6.9	6.1	79	20.	--
			7.6	180	28.5	6.9	6.3	82	15.	--
					LINE 87					
OCT 22, 75	0935	2	.3	17000	21.9	7.4	6.7	81	--	77
			1.5	18000	22.0	7.4	6.8	82	--	--
			3.0	19000	22.2	7.4	6.2	75	--	--
			6.1	22000	22.6	7.4	5.6	69	--	--
			9.1	23000	22.8	7.4	5.1	63	--	--
FEB 02, 76	1740	2	.3	8000	13.2	7.7	10.6	102	30.	--
			3.0	12000	13.2	7.5	7.7	75	25.	--
			4.6	16000	13.1	7.5	7.0	69	10.	--
			6.1	23000	14.3	7.5	6.3	66	50.	--
			10.1	17000	14.5	7.5	6.0	63	20.	--
APR 13, 76	1030	2	.3	2600	21.1	7.3	7.6	85	80.	51
			3.0	4000	21.2	7.4	7.0	79	20.	--
			6.1	15000	21.1	7.5	5.3	62	20.	--
			10.4	20000	21.1	7.3	5.3	63	20.	--
JUN 08, 76	1645	2	.3	480	25.2	6.7	6.0	74	45.	50
			3.0	820	25.1	6.8	5.4	67	35.	--
			6.1	7400	25.1	6.9	4.6	58	25.	--
			7.6	9300	26.0	7.2	4.8	61	60.	--
			12.2	21000	28.0	7.4	4.6	64	55.	--
AUG 17, 76	1150	2	.3	2800	30.0	7.3	6.5	87	0.	51
			3.0	7000	29.8	7.4	5.5	74	0.	--
			4.6	12000	30.0	7.6	5.0	69	0.	--
			7.6	24000	30.0	7.8	4.0	58	--	--
			10.4	25000	30.0	7.8	3.7	53	20.	--
					LINE 107					
OCT 22, 75	1050	2	.3	150	20.5	7.2	8.3	91	--	60
			1.5	170	20.5	7.2	8.3	91	--	--
			3.0	150	20.2	7.2	8.1	88	--	--
			5.2	170	20.2	7.1	8.1	88	--	--

TABLE 1A--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 107 CONTINUED					
FEB 02, 76	1410	2	.3	160	16.0	6.5	7.2	72	75.	--
			1.5	160	16.0	6.5	7.2	72	80.	--
			3.0	170	16.0	6.5	7.2	72	85.	--
			4.6	170	16.0	6.4	7.2	72	110.	--
			6.1	190	16.0	6.4	7.2	72	115.	--
			7.6	150	16.1	6.5	7.2	72	105.	--
APR 13, 76	1210	2	.3	180	22.6	6.7	7.3	84	60.	34
			3.0	190	23.0	6.8	7.4	85	60.	--
			6.1	200	23.0	6.8	7.4	85	60.	--
JUN 07, 76	1600	2	.3	120	24.5	6.2	6.6	80	170.	41
			1.5	120	24.2	6.1	6.3	77	175.	--
			3.0	120	24.2	6.1	6.3	77	95.	--
			4.6	110	24.1	6.1	6.3	77	140.	--
			6.4	110	24.1	6.0	6.3	77	--	--
AUG 17, 76	1340	2	.3	170	29.1	7.0	7.2	95	--	35
			1.5	170	29.0	6.9	7.3	96	5.	--
			3.0	140	29.0	6.9	6.8	89	5.	--
			5.5	190	33.0	7.1	4.7	65	20.	--
					LINE 214					
OCT 22, 75	1135	2	.3	19000	24.3	7.4	3.7	46	--	91
			3.0	20000	23.8	7.3	4.4	56	--	--
			6.1	22000	23.2	7.4	4.7	58	--	--
			9.1	25000	23.0	7.4	4.8	60	--	--
			14.0	27000	23.0	7.4	5.0	63	--	--
FEB 02, 76	1525	2	.3	9000	16.2	6.1	6.9	71	40.	--
			3.0	11000	16.0	7.6	6.7	69	30.	--
			6.1	23000	16.0	7.6	6.2	67	--	--
			9.1	24000	16.0	7.7	6.2	67	30.	--
			12.2	28000	16.1	7.9	6.0	67	250.	--
APR 13, 76	1315	2	.3	9000	22.8	7.7	6.9	81	250.	65
			3.0	12000	22.6	7.7	5.2	62	20.	--
			6.1	14000	22.4	7.7	4.8	56	15.	--
			9.1	17000	22.5	7.7	4.0	49	20.	--
			13.1	23000	23.0	7.6	3.9	48	20.	--
JUN 07, 76	1705	2	.3	3200	25.4	6.8	5.6	70	70.	52
			1.5	4000	25.2	6.9	5.3	66	65.	--
			4.6	16000	24.8	7.1	4.1	54	60.	--
			9.1	26000	25.4	7.6	3.6	49	60.	--
			12.2	30000	25.8	7.7	3.8	53	75.	--
AUG 17, 76	1220	2	.3	8000	32.5	8.2	5.5	79	15.	67
			3.0	15000	30.8	7.8	4.5	64	10.	--
			6.1	23000	30.3	7.9	4.7	64	10.	--
			9.1	31000	30.1	8.0	3.7	56	10.	--
			12.5	32000	31.0	7.9	4.3	66	50.	--
					LINE 244					
OCT 21, 75	1055	4	.3	18000	21.5	7.4	6.6	79	--	156
			1.8	19000	21.5	7.4	6.5	77	--	--
FEB 03, 76	0925	4	.3	19000	12.5	7.5	7.3	72	25.	--
			1.5	19000	12.5	7.5	7.8	77	30.	--
APR 12, 76	1400	4	.3	4000	25.3	8.4	9.0	108	110.	55
			1.2	7000	22.8	7.5	8.6	100	200.	--
JUN 08, 76	0845	4	.3	3800	23.8	6.9	7.1	87	75.	45
			.9	3800	23.8	6.9	6.6	80	105.	--

TABLE 1A--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 244 CONTINUED						
JUN 08, 76	0845	4	2.1	5200	24.0	6.9	6.2	76	185.	--
AUG 16, 76	1310	4	.3	3500	31.9	8.0	5.9	82	0.	--
			2.1	8000	32.0	7.4	5.6	79	120.	--
				LINE 274						
OCT 21, 75	1125	1	.3	13000	21.0	7.4	7.4	86	--	55
			1.2	15000	21.0	7.4	7.6	88	--	--
FEB 03, 76	0955	1	.3	15000	13.0	7.5	7.2	71	10.	--
			1.1	16000	13.0	7.5	7.3	72	20.	--
JUN 08, 76	0910	1	.3	3400	25.8	7.6	8.1	103	60.	60
			.9	3700	25.8	7.6	8.1	103	40.	--
			2.1	3900	25.2	7.5	6.0	75	80.	--
AUG 16, 76	1330	1	.3	5500	31.7	7.5	5.7	79	5.	--
			1.5	5000	32.0	7.4	5.7	79	5.	--
OCT 21, 75	1135	2	.3	19000	20.5	7.6	8.2	96	--	120
			1.8	14000	20.5	7.6	8.2	94	--	--
FEB 03, 76	1010	2	.3	15000	14.0	7.7	7.2	73	10.	--
			1.7	15000	13.4	7.5	7.4	74	5.	--
APR 12, 76	1445	2	.3	2300	23.0	7.9	8.7	101	80.	59
			2.0	5000	21.2	7.2	9.0	101	25.	--
JUN 08, 76	0925	2	.3	2800	26.0	7.3	7.6	96	70.	130
			1.5	2800	26.0	7.3	7.1	90	30.	--
			2.7	2800	26.0	7.3	7.5	95	75.	--
AUG 16, 76	1340	2	.3	6000	30.8	7.0	6.1	84	0.	--
			1.8	6000	31.0	7.0	5.9	81	10.	--
OCT 21, 75	1155	3	.3	15000	20.5	7.6	8.4	98	--	100
			1.5	15000	21.0	7.6	8.3	97	--	--
FEB 03, 76	1020	3	.3	14000	13.5	7.4	7.8	77	20.	--
			1.8	14000	13.1	7.4	8.6	84	15.	--
APR 12, 76	1500	3	.3	2900	23.5	7.8	10.9	128	90.	54
			1.7	3000	23.9	7.3	8.9	106	115.	--
JUN 08, 76	0950	3	.3	3400	26.1	7.2	7.3	92	70.	88
			1.2	3200	26.0	7.2	7.2	91	100.	--
			2.4	3400	26.0	7.3	7.2	91	105.	--
AUG 16, 76	1355	3	.3	5000	31.0	7.8	6.1	84	5.	--
			2.1	5000	31.0	7.6	6.0	82	5.	--
OCT 21, 75	1200	4	.3	16000	21.0	7.6	8.6	100	--	175
			1.5	14000	21.0	7.6	8.6	100	--	--
FEB 03, 76	1030	4	.3	14000	13.0	7.6	7.8	76	20.	--
			1.7	15000	13.3	7.6	7.7	77	20.	--
APR 12, 76	1510	4	.3	3600	23.9	7.9	9.1	108	30.	61
			1.4	4200	22.3	7.5	8.8	101	30.	--
JUN 08, 76	1000	4	.3	2800	26.0	7.2	7.3	92	90.	50
			.8	3200	26.0	7.2	7.3	92	90.	--
			1.2	2900	26.0	7.2	7.4	94	195.	--
			2.1	3200	26.0	7.2	7.3	92	105.	--
AUG 16, 76	1400	4	.3	5500	30.9	7.7	6.1	84	0.	--
			1.8	6000	30.9	7.6	6.3	86	10.	--

TABLE 1A--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS) (FIELD)	TEMPER-ATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATUR-ATION	TUR-BIDITY (JTU)	TRANS-PARENCY SECCHI DISK (CM)
					LINE 300					
OCT 21, 75	1225	2	.3	16000	21.0	7.6	7.9	92	--	82
			1.8	14000	21.0	7.6	7.8	91	--	--
FEB 03, 76	1055	2	.3	18000	14.0	7.8	7.3	74	5.	--
			1.8	19000	14.0	7.8	7.7	79	5.	--
APR 12, 76	1610	2	.3	15000	22.0	7.8	8.6	102	30.	51
			1.4	16000	22.0	7.8	9.2	110	100.	--
JUN 08, 76	1035	2	.3	4400	26.0	7.7	7.7	97	95.	50
			1.5	4400	26.0	7.6	7.7	97	110.	--
			2.7	4400	25.1	7.6	7.6	95	140.	--
AUG 16, 76	1425	2	.3	5000	30.0	7.5	6.8	92	5.	--
			2.1	5000	30.2	7.5	6.0	81	0.	--
					LINE 323					
OCT 21, 75	1435	2	.3	17000	23.2	7.8	7.5	91	--	87
			3.0	18000	22.5	7.8	7.5	91	--	--
			6.1	20000	22.8	7.6	5.6	69	--	--
			9.1	22000	22.9	7.6	5.8	72	--	--
			12.2	26000	23.0	7.7	5.2	65	--	--
FEB 03, 76	1430	2	.3	17000	15.0	7.6	7.6	79	30.	--
			3.0	18000	14.9	7.7	7.5	78	30.	--
			4.6	20000	14.0	7.7	7.3	75	30.	--
			7.6	30000	14.0	7.8	6.3	68	30.	--
			10.7	50000	14.0	8.0	5.8	69	40.	--
			13.7	50000	17.5	7.9	5.4	69	300.	--
APR 13, 76	1520	2	.3	11000	22.7	7.9	8.2	96	10.	61
			3.0	14000	22.3	7.7	6.5	76	25.	--
			6.1	19000	22.1	7.8	4.4	53	20.	--
			9.1	22000	22.6	7.8	5.1	63	130.	--
			12.2	22000	23.3	7.8	4.4	54	225.	--
JUN 08, 76	1405	2	.3	3600	26.2	6.9	5.9	75	50.	60
			1.5	4000	26.0	6.9	6.0	76	50.	--
			4.6	6900	25.8	7.1	5.6	72	50.	--
			9.1	24000	26.0	7.8	5.0	66	45.	--
			13.7	31000	26.0	7.9	5.4	76	75.	--
JUL 22, 76	0550	2	.3	8000	29.5	7.2	5.3	72	30.	--
			1.5	8500	29.5	7.3	5.3	72	50.	--
			3.0	8500	30.0	7.3	5.0	68	40.	--
			6.1	16000	29.4	7.5	3.9	55	50.	--
			9.1	22000	29.0	7.5	3.3	47	60.	--
			13.4	23000	29.0	7.6	3.4	49	140.	--
JUL 23, 76	1200	2	.3	11000	30.0	7.3	5.0	69	--	--
			3.0	14000	30.0	7.4	4.5	62	--	--
			6.1	20000	30.0	7.5	3.9	56	--	--
			9.1	28000	29.9	7.7	3.0	45	--	--
			14.0	30000	29.8	7.7	3.3	49	--	--
JUL 24, 76	0030	2	.3	9500	30.0	7.1	4.7	64	--	--
			1.5	9500	30.0	7.1	3.7	51	--	--
			3.0	9500	30.0	7.1	4.7	64	--	--
			6.1	9500	30.0	7.2	4.7	64	--	--
			10.7	17000	29.8	7.3	4.0	56	--	--
AUG 16, 76	1615	2	.3	9000	31.7	8.0	7.0	99	0.	--
			3.0	10000	31.1	7.8	5.8	81	0.	--
			6.1	18000	30.1	7.8	4.5	63	0.	--

TABLE 1A--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 323 CONTINUED					
AUG 16, 76	1615	2	9.1	30000	30.0	7.9	3.8	57	0.	--
			12.2	35000	30.0	7.9	3.3	50	60.	--
					LINE 339					
OCT 21, 75	1355	2	.3	25000	22.9	7.7	4.9	61	--	56
			3.0	25000	22.8	7.7	4.7	59	--	--
			6.1	26000	22.7	7.7	4.5	56	--	--
			9.1	28000	22.7	7.7	5.1	65	--	--
			10.7	31000	22.5	7.7	4.8	62	--	--
FEB 03, 76	1340	2	.3	21000	14.8	7.7	7.2	76	80.	--
			3.0	25000	13.4	7.9	7.1	74	50.	--
			6.1	38000	13.0	7.9	6.5	71	40.	--
			10.7	42000	13.8	8.0	6.1	70	70.	--
APR 13, 76	1445	2	.3	17000	22.2	7.7	6.1	74	3.	68
			3.0	17000	22.0	7.9	5.7	69	5.	--
			6.1	26000	22.0	8.0	5.6	69	100.	--
			11.3	32000	23.0	8.1	6.5	83	350.	--
JUN 08, 76	1330	2	.3	9700	25.4	7.2	6.5	83	75.	60
			1.5	11000	25.4	7.3	6.2	81	70.	--
			4.6	30000	25.9	7.6	5.6	78	60.	--
			9.1	30000	26.0	8.0	6.2	86	45.	--
			12.8	32000	26.0	7.9	5.4	76	35.	--
AUG 16, 76	1545	2	.3	16000	30.7	7.9	5.6	80	0.	--
			3.0	18000	30.0	7.9	4.9	69	0.	--
			6.1	32000	29.9	8.0	4.0	61	0.	--
			9.1	42000	29.8	8.0	3.6	57	0.	--
			12.2	42000	29.6	8.0	3.5	55	120.	--
					LINE 369					
OCT 21, 75	1325	2	.3	27000	22.0	7.8	6.3	79	--	70
			3.0	27000	22.0	7.8	6.1	76	--	--
			6.1	29000	22.0	7.8	6.0	75	--	--
			9.1	31000	22.5	7.8	5.8	74	--	--
			12.2	34000	22.5	7.9	5.9	76	--	--
FEB 03, 76	1310	2	.3	14000	14.1	7.9	7.4	74	50.	--
			3.0	25000	13.0	7.9	7.1	73	50.	--
			6.1	29000	13.0	8.0	6.7	70	50.	--
			9.1	31000	13.1	8.0	6.9	73	30.	--
			11.6	28000	15.0	8.0	6.8	75	500.	--
APR 13, 76	1420	2	.3	18000	22.1	8.0	7.0	84	10.	68
			3.0	23000	22.0	8.1	6.6	80	10.	--
			6.1	29000	22.0	8.2	7.5	94	10.	--
			9.1	34000	22.5	8.2	7.8	100	120.	--
			11.6	34000	23.9	8.2	6.2	83	> 500.	--
AUG 16, 76	1515	2	.3	14000	30.1	8.0	6.9	96	0.	--
			3.0	18000	30.0	8.1	6.2	87	0.	--
			6.1	24000	30.0	7.8	4.9	71	0.	--
			7.6	27000	30.0	8.0	5.8	85	0.	--
			12.8	30000	30.0	8.0	5.4	81	60.	--
					LINE 377					
APR 12, 76	1635	2	.3	20000	22.7	8.1	8.9	110	30.	38
			3.0	26000	21.9	8.2	9.0	111	20.	--
			6.1	34000	21.5	8.4	10.5	135	75.	--
			11.9	36000	21.0	8.3	10.1	130	20.	--
JUN 08, 76	1245	2	.3	8600	26.0	7.9	7.9	101	60.	80

TABLE 1A--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 377 CONTINUED					
JUN 08, 76	1245	2	1.5	11000	26.0	7.9	7.3	95	65.	--
			4.6	25000	26.0	8.1	6.7	92	65.	--
			9.1	32000	26.0	8.2	6.9	97	--	--
			13.7	40000	26.0	8.1	6.5	96	--	--
AUG 16, 76	1445	2	.6	14000	29.9	7.9	6.4	89	0.	--
			1.5	16000	29.8	7.9	6.2	87	0.	--
			3.0	20000	29.7	8.0	5.6	80	0.	--
			4.6	27000	29.9	8.0	4.5	66	0.	--
			6.1	42000	29.5	8.0	3.8	59	0.	--
			9.1	34000	29.8	8.0	3.9	59	0.	--
			12.2	42000	29.8	8.0	3.6	57	0.	--
			15.2	47000	29.9	8.0	3.5	56	70.	--
					LINE 903					
JUN 08, 76	1130	1	.3	38000	26.4	8.2	8.3	122	--	65
			3.0	44000	26.1	8.2	7.4	111	--	--
			6.1	44000	26.2	8.2	7.4	110	--	--
			12.2	44000	26.2	8.2	7.1	106	--	--
			16.5	42000	26.0	8.2	7.2	106	115.	--

TABLE 1B--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 15						
OCT 21, 75	1555	2	.3	15.0	.08	.06	.01	--	.05	--	--	--
FEB 02, 76	1650	2	.3	14.0	.05	.03	.00	--	.04	--	--	--
APR 13, 76	0945	2	.3	7.7	.07	.01	.00	--	.02	--	--	--
JUN 08, 76	1505	2	.3	6.7	.01	.01	.00	--	.05	--	--	--
AUG 17, 76	1105	2	.3	4.1	.02	.01	.00	--	.02	--	--	--
						LINE 87						
OCT 22, 75	0935	2	.3	--	.17	.06	.05	--	.05	1.5	--	--
			9.1	--	.12	.13	.04	--	.06	1.2	--	--
FEB 02, 76	1740	2	.3	--	.28	.32	.02	--	.06	1.6	--	--
			10.1	--	.34	.51	.03	--	.11	1.0	--	--
APR 13, 76	1030	2	.3	--	.12	.08	.01	--	.03	1.4	--	--
			10.4	--	.17	.34	.02	--	.05	1.3	--	--
JUN 08, 76	1645	2	.3	--	.06	.04	.01	--	.06	1.4	--	--
			12.2	--	.08	.28	.04	--	.08	1.0	--	--
AUG 17, 76	1150	2	.3	4.6	.12	.15	.03	--	.03	.9	--	6.1
			10.4	4.9	.07	.16	.02	--	.08	.7	--	5.8
						LINE 107						
OCT 22, 75	1050	2	.3	11.0	.00	.00	.01	--	.03	--	--	--
FEB 02, 76	1410	2	.3	13.0	.02	.01	.00	--	.06	--	--	--
APR 13, 76	1210	2	.3	11.0	.03	.01	.00	--	.04	--	--	--
JUN 07, 76	1600	2	.3	8.7	.02	.01	.01	--	.09	--	--	--
AUG 17, 76	1340	2	.3	11.0	.02	.01	.00	--	.04	--	--	--
						LINE 214						
OCT 22, 75	1135	2	.3	--	.12	.02	.04	--	.05	3.2	--	--
			14.0	--	.09	.21	.05	--	.13	1.4	--	--
FEB 02, 76	1525	2	.3	--	.45	.48	.05	--	.07	3.0	--	--
			12.2	--	.22	.36	.02	--	.17	1.1	--	--
APR 13, 76	1315	2	.3	--	.20	.12	.01	--	.08	1.8	--	--
			13.1	--	.18	.26	.02	--	.05	1.2	--	--
JUN 07, 76	1705	2	.3	--	.09	.09	.03	--	.07	1.9	--	--
			12.2	--	.07	.26	.03	--	.08	1.2	--	--
AUG 17, 76	1220	2	.3	7.8	.09	.01	.02	--	.04	2.5	--	6.9
			12.5	3.5	.06	.18	.02	--	.08	.9	--	9.0
						LINE 244						
OCT 21, 75	1055	4	.3	--	.16	.11	.04	--	.04	--	--	--
FEB 03, 76	0925	4	.3	--	.43	.51	.04	--	.06	--	--	--
APR 12, 76	1400	4	.3	--	.12	.03	.01	--	.04	--	--	--

TABLE 18--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
					LINE 244 CONTINUED							
JUN 08, 76	0845	4	.3	--	.08	.06	.01	--	.03	--	--	--
AUG 16, 76	1310	4	.3	--	.06	.04	.00	--	.02	--	--	--
					LINE 274							
OCT 21, 75	1135	2	.3	4.4	.03	.03	.02	--	.04	--	--	--
			1.8	--	.03	.01	.02	--	.04	--	--	--
FEB 03, 76	1010	2	.3	5.3	.23	.07	.01	--	.06	2.2	--	--
			1.7	--	.23	.09	.01	--	.04	.5	--	--
APR 12, 76	1445	2	.3	6.6	.11	.01	.01	--	.02	.9	--	--
			2.0	--	.17	.06	.01	--	.18	1.2	--	--
JUN 08, 76	0925	2	.3	6.5	.08	.07	.01	--	.02	.7	--	--
			2.7	--	.08	.07	.01	--	.08	.6	--	--
AUG 16, 76	1340	2	.3	5.7	.01	.01	.00	--	.03	.9	--	4.3
			1.8	--	.02	.01	.00	--	.03	.7	--	--
					LINE 300							
OCT 21, 75	1225	2	.3	--	.00	.01	.01	--	.04	--	--	--
FEB 03, 76	1055	2	.3	--	.30	.16	.01	--	.06	--	--	--
APR 12, 76	1610	2	.3	--	.20	.13	.01	--	.04	--	--	--
JUN 08, 76	1035	2	.3	--	.04	.01	.01	--	.08	--	--	--
AUG 16, 76	1425	2	.3	--	.02	.01	.00	--	.02	--	--	--
					LINE 339							
OCT 21, 75	1355	2	.3	--	.12	.17	.04	--	.09	1.0	--	--
			10.7	--	.07	.17	.02	--	.09	.8	--	--
FEB 03, 76	1340	2	.3	--	.25	.45	.02	--	.13	1.4	--	--
			10.7	--	.02	.11	.01	--	.06	.7	--	--
APR 13, 76	1445	2	.3	--	.19	.19	.01	--	.03	1.2	--	--
			11.3	--	.07	.15	.01	--	.23	2.4	--	--
JUN 08, 76	1330	2	.3	--	.10	.18	.04	--	.16	1.8	--	--
			12.8	--	.07	.14	.02	--	.08	1.0	--	--
AUG 16, 76	1545	2	.3	--	.10	.07	.01	--	.04	1.0	--	5.1
			12.2	--	.03	.17	.02	--	.08	.7	--	6.0
					LINE 903							
APR 12, 76	1730	1	.3	.3	.00	.07	.00	--	.01	1.7	--	--
			10.7	--	.00	.26	.01	--	.05	1.6	--	--
JUN 08, 76	1130	1	.3	1.2	.03	.08	.01	--	.07	1.6	--	--
			16.5	--	.02	.14	.02	--	.11	1.2	--	--

TABLE 1C--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (LAB)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 15					
OCT 21, 75	1555	2	.3	1620	17.0	28.0	--	38	72	420	843
FEB 02, 76	1650	2	.3	141	4.3	1.6	--	17	11	24	81
APR 13, 76	0945	2	.3	153	7.3	2.2	--	25	14	20	80
JUN 08, 76	1505	2	.3	125	6.3	3.6	--	24	12	17	72
AUG 17, 76	1105	2	.3	206	7.8	3.1	--	31	15	23	88
						LINE 87					
OCT 22, 75	0935	2	.3	16900	--	--	--	--	--	--	--
			9.1	23200	--	--	--	--	--	--	--
FEB 02, 76	1740	2	.3	7890	--	--	--	--	--	--	--
			10.1	16400	--	--	--	--	--	--	--
APR 13, 76	1030	2	.3	2480	--	--	--	--	--	--	--
			10.4	19700	--	--	--	--	--	--	--
JUN 08, 76	1645	2	.3	478	--	--	--	--	--	--	--
			12.2	21300	--	--	--	--	--	--	--
AUG 17, 76	1150	2	.3	2540	23.0	48.0	--	34	100	710	1310
			10.4	25600	200.0	610.0	--	86	1200	8700	15700
						LINE 107					
OCT 22, 75	1050	2	.3	154	7.0	2.8	--	22	17	18	82
FEB 02, 76	1410	2	.3	163	7.8	1.8	--	19	14	26	90
APR 13, 76	1210	2	.3	191	9.1	2.5	--	19	24	27	104
JUN 07, 76	1600	2	.3	125	6.1	2.0	--	22	17	14	74
AUG 17, 76	1340	2	.3	170	6.5	3.1	--	25	19	21	92
						LINE 214					
OCT 22, 75	1135	2	.3	19300	--	--	--	--	--	--	--
			14.0	25600	--	--	--	--	--	--	--
FEB 02, 76	1525	2	.3	9400	--	--	--	--	--	--	--
			12.2	27600	--	--	--	--	--	--	--
APR 13, 76	1315	2	.3	9120	--	--	--	--	--	--	--
			13.1	23800	--	--	--	--	--	--	--
JUN 07, 76	1705	2	.3	3220	--	--	--	--	--	--	--
			12.2	29200	--	--	--	--	--	--	--
AUG 17, 76	1220	2	.3	8080	67.0	160.0	--	52	350	2500	4560
			12.5	33300	250.0	790.0	--	105	1600	12000	21100
						LINE 274					
OCT 21, 75	1135	2	.3	18700	140.0	450.0	--	73	850	6300	11400
FEB 03, 76	1010	2	.3	14400	110.0	300.0	--	60	590	4500	8150
			1.7	14700	--	--	--	--	--	--	--

TABLE 1C--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (C_L) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 274 CONTINUED						
APR 12, 76	1445	2	.3	2440	22.0	45.0	--	24	100	740	1340
			2.0	5000	--	--	--	--	--	--	--
JUN 08, 76	0925	2	.3	2770	24.0	51.0	--	31	120	840	1530
			2.7	2800	--	--	--	--	--	--	--
AUG 16, 76	1340	2	.3	8210	57.0	160.0	--	42	360	2500	4550
			1.8	8970	--	--	--	--	--	--	--
					LINE 339						
OCT 21, 75	1355	2	.3	24600	--	--	--	--	--	--	--
			10.7	30000	--	--	--	--	--	--	--
FEB 03, 76	1340	2	.3	21800	--	--	--	--	--	--	--
			10.7	41000	--	--	--	--	--	--	--
APR 13, 76	1445	2	.3	17100	--	--	--	--	--	--	--
			11.3	35100	--	--	--	--	--	--	--
JUN 08, 76	1330	2	.3	8870	--	--	--	--	--	--	--
			12.8	33000	--	--	--	--	--	--	--
AUG 16, 76	1545	2	.3	16000	--	--	--	--	--	--	--
			12.2	43100	--	--	--	--	--	--	--
					LINE 903						
APR 12, 76	1730	1	.3	41000	310.0	980.0	--	133	2200	14000	26000
			10.7	46500	--	--	--	--	--	--	--
JUN 08, 76	1130	1	.3	40000	290.0	880.0	--	124	1900	14000	25000
			16.5	44000	--	--	--	--	--	--	--

TABLE 1E--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 274					
OCT 21, 75	1135	2	.3	.00	--	.0	--	.00	--	.00	--
						LINE 339					
OCT 21, 75	1355	2	.3	.00	--	.0	--	.00	--	.00	--

TABLE 1E--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 274					
OCT 21, 75	1135	2	.3	.00	--	.00	--	.00	--	.00	--
						LINE 339					
OCT 21, 75	1355	2	.3	.00	--	.00	--	.00	--	.00	--

TABLE 1E--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTACHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL MALATHION (UG/L)	TOTAL DIAZINON (UG/L)
						LINE 274					
OCT 21, 75	1135	2	.3	.00	--	.00	--	--	.00	.00	.00
						LINE 339					
OCT 21, 75	1355	2	.3	.00	--	.00	--	--	.00	.00	.00

TABLE 1E--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 87					
OCT 22, 75	0935	2	.3	--	--	.03	--	.00	--	.00	--
						LINE 214					
OCT 22, 75	1135	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 274					
OCT 21, 75	1135	2	.3	.0	--	.00	--	.00	--	.00	--
						LINE 339					
OCT 21, 75	1355	2	.3	.0	--	.00	--	.00	--	.00	--

TABLE 1E--QUALITY OF WATER IN THE SABINE-NECHES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION (UG/KG)
						LINE 274					
OCT 21, 75	1135	2	.3	.0	--	.00	--	.00	--	--	--
						LINE 339					
OCT 21, 75	1355	2	.3	.0	--	.00	--	.00	--	--	--

Trinity-San Jacinto Estuary

The Trinity-San Jacinto estuary, which has an area of about 520 square miles (1,350 km^2), consists of the tidal parts of the Trinity and San Jacinto Rivers and other tributaries, the Houston Ship Channel, part of the Intracoastal Waterway, Galveston Bay, East Bay, West Bay, and Trinity Bay (Figure 3). Water depth at mean low water is less than 10 feet (3.0 m) in East Bay, West Bay, and Trinity Bay. Galveston Bay is generally less than 10 feet (3.0 m) deep except near Bolivar Road where the depth increases to about 40 feet (12.2 m). The Houston Ship Channel is more than 40 feet (12.2 m) deep, and the Intracoastal Waterway is about 15 feet deep (4.6 m).

Water-quality data (Table 2) were collected during July 1976. Data for the San Jacinto River and for the upper part of the Houston Ship Channel are being collected by other agencies.

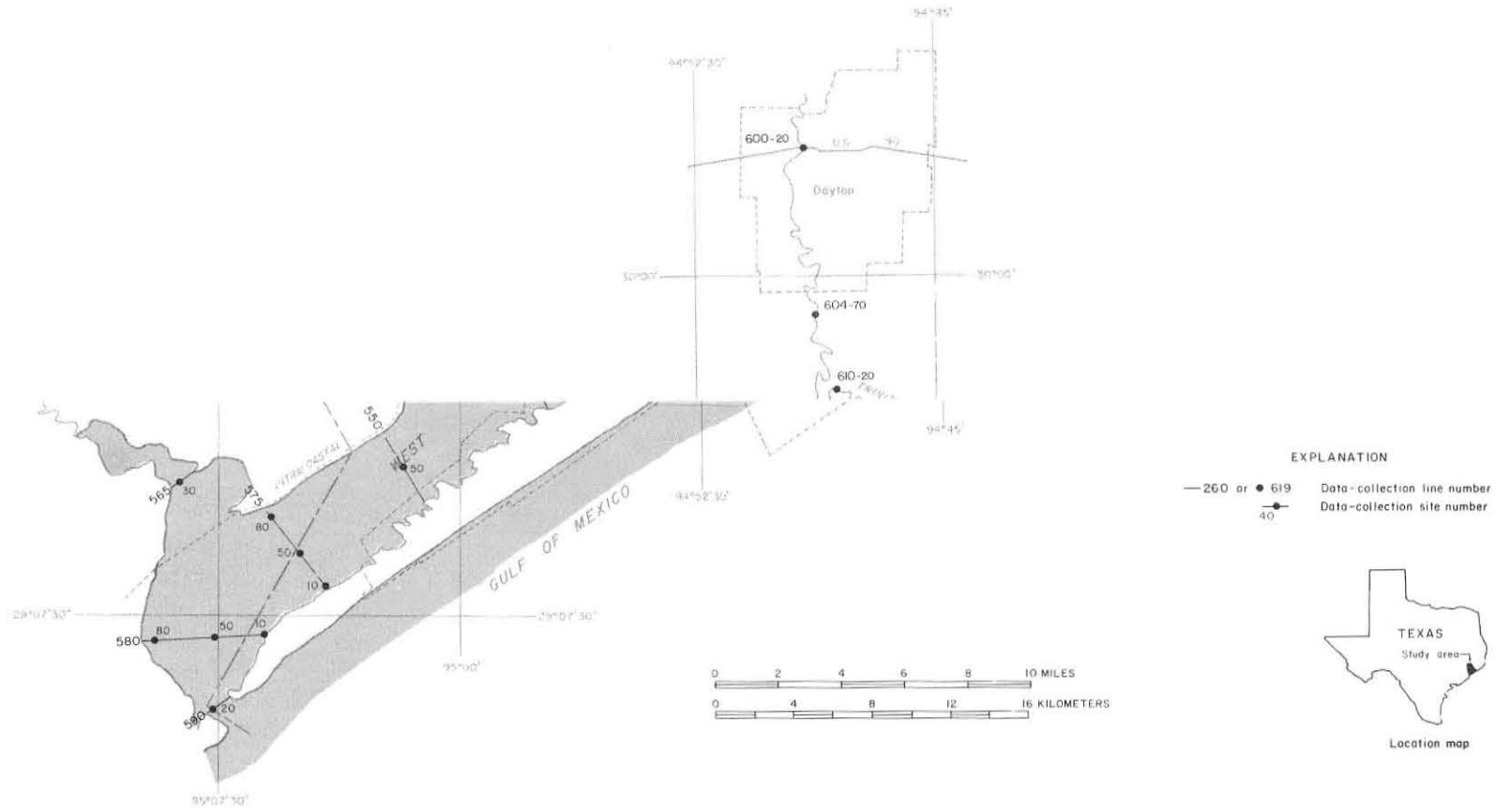

Figure 3

Data-Collection Sites in the Trinity-San Jacinto Estuary

Base from U.S. Geological Survey topographic quadrangles

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 180					
JUL 19, 76	1355	20	.3	8500	29.0	7.6	4.7	63	5.	34
			3.0	9000	29.0	7.5	3.7	50	0.	--
			6.1	15000	28.7	7.6	2.6	36	0.	--
			9.1	25000	28.6	7.9	2.4	34	15.	--
			13.4	33000	28.4	7.8	1.6	23	30.	--
JUL 21, 76	1630	20	.3	10000	28.8	7.5	5.9	80	--	42
			1.5	13000	28.8	7.4	5.5	75	--	--
			4.6	14000	28.6	7.2	3.4	47	--	--
			7.6	20000	28.4	7.2	1.8	25	--	--
			11.6	20000	28.6	7.2	3.7	51	--	--
JUL 21, 76	1800	20	.3	10000	28.8	7.7	5.1	69	--	40
			1.5	10000	28.7	7.7	4.7	63	--	--
			4.6	14000	28.6	7.6	3.2	44	--	--
			7.6	19000	28.4	7.6	2.4	33	--	--
			11.6	29000	28.4	7.6	3.2	46	--	--
JUL 21, 76	2040	20	.3	13000	28.0	8.0	5.2	70	--	--
			3.0	14000	28.0	7.8	4.8	65	--	--
			6.1	16000	28.0	7.8	4.7	64	--	--
			9.1	19000	28.0	7.8	4.6	64	--	--
			13.4	24000	30.0	7.9	4.6	67	--	--
JUL 21, 76	1340	20	.3	11000	29.0	7.8	4.7	62	--	37
			1.5	14000	28.9	7.7	3.6	49	--	--
			4.6	16000	29.0	7.8	3.0	42	--	--
			7.6	19000	28.9	7.7	2.2	32	--	--
			11.6	20000	29.4	7.7	2.7	38	--	--
JUL 21, 76	0900	20	.3	12000	28.6	7.9	4.8	65	--	40
			1.5	13000	28.5	7.9	4.6	62	--	--
			4.6	17000	28.8	8.0	4.1	57	--	--
			7.6	18000	28.6	7.8	5.2	72	--	--
			11.6	23000	28.4	7.8	3.5	49	--	--
JUL 21, 76	1100	20	.3	12000	28.0	8.0	5.0	64	--	38
			1.5	12000	28.0	7.8	4.9	66	--	--
			4.6	13000	28.0	7.9	4.8	65	--	--
			7.6	17000	28.0	7.9	4.6	63	--	--
			11.6	22000	28.0	7.8	4.1	58	--	--
JUL 21, 76	2215	20	.3	10000	28.5	7.9	4.8	64	--	--
			3.0	13000	28.5	7.8	3.6	49	--	--
			6.1	14000	28.5	7.8	3.3	45	--	--
			9.1	16000	28.0	7.8	2.8	38	--	--
			13.1	25000	27.5	7.8	3.3	46	--	--
JUL 22, 76	0235	20	.3	9500	28.0	8.0	3.9	52	--	--
			3.0	11000	28.0	7.8	3.6	49	--	--
			6.1	15000	28.0	7.6	3.4	46	--	--
			9.1	19000	27.5	7.8	3.4	47	--	--
			13.4	24000	26.5	7.9	3.5	49	--	--
JUL 22, 76	0410	20	.3	10000	28.0	7.9	3.8	51	--	--
			3.0	11000	28.0	7.9	3.7	50	--	--
			6.1	15000	28.0	7.9	3.5	47	--	--
			9.1	19000	28.0	7.9	3.4	47	--	--
			13.4	22000	26.5	7.9	4.7	64	--	--
JUL 22, 76	0615	20	.3	12000	28.0	8.1	4.0	54	--	--
			3.0	13000	28.0	8.0	4.1	55	--	--
			6.1	13000	27.5	8.0	3.8	51	--	--
			9.1	19000	27.5	8.0	3.7	51	--	--
			13.4	22000	26.0	7.9	4.9	66	--	--
JUL 22, 76	0800	20	.3	12000	27.8	8.2	3.8	51	--	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 180 CONTINUED					
JUL 22, 76	0800	20	3.0	13000	28.0	8.2	3.7	50	--	--
			6.1	15000	28.0	8.2	3.6	49	--	--
			9.1	22000	27.8	8.0	3.3	46	--	--
			12.2	23000	27.5	8.0	3.4	47	--	--
JUL 22, 76	0020	20	.3	9000	28.0	8.0	5.1	68	--	--
			3.0	11000	28.0	7.8	3.3	45	--	--
			6.1	13000	28.0	7.7	3.3	45	--	--
			9.1	17000	28.0	7.7	3.1	42	--	--
			13.1	24000	27.0	7.8	4.8	67	--	--
JUL 24, 76	0905	20	.3	12000	30.0	7.6	5.1	71	--	43
			3.0	14000	30.2	7.6	4.8	67	--	--
			6.1	18000	30.1	7.7	4.5	64	--	--
			9.1	23000	30.1	7.7	4.0	58	--	--
			12.5	29000	29.5	7.7	3.9	58	--	--
					LINE 215					
JUL 19, 76	1320	20	.3	360	28.6	8.3	7.6	99	70.	--
			3.4	340	28.6	8.4	7.3	95	90.	--
JUL 24, 76	1240	20	.3	390	29.5	--	6.9	91	--	--
			2.1	380	29.5	--	6.8	89	--	--
					LINE 220					
JUL 19, 76	1310	30	.3	370	28.6	8.4	7.3	95	100.	--
			2.1	370	28.6	8.5	7.3	95	180.	--
JUL 24, 76	1230	30	.3	380	29.5	--	6.4	84	--	--
			2.1	390	29.1	--	6.3	83	--	--
					LINE 230					
JUL 19, 76	1255	40	.3	1200	29.3	8.7	7.9	105	90.	--
			2.1	1200	28.6	8.6	6.9	90	100.	--
JUL 24, 76	1220	40	.3	1200	29.9	--	7.5	100	--	--
			1.8	1200	28.9	--	6.0	79	--	--
					LINE 237					
JUL 19, 76	1245	50	.3	2200	29.2	8.7	7.8	103	70.	--
			2.4	2500	28.5	8.7	6.4	83	70.	--
JUL 24, 76	1210	50	.3	2500	29.8	--	7.6	101	--	--
			2.1	2600	28.9	--	6.2	82	--	--
					LINE 242					
JUL 21, 76	2400	20	.3	3100	30.0	8.6	7.0	93	--	--
JUL 21, 76	1600	20	.3	2900	30.5	8.2	7.5	101	--	--
JUL 21, 76	1800	20	.3	2900	31.5	8.4	8.0	110	--	--
JUL 21, 76	2000	20	.3	3000	31.0	8.4	8.4	115	--	--
JUL 21, 76	2200	20	.3	3000	29.5	8.6	7.5	100	--	--
JUL 22, 76	0200	20	.3	3100	29.0	8.4	7.0	92	--	--
JUL 22, 76	0400	20	.3	2900	29.0	8.4	6.4	84	--	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)	
					LINE 242 CONTINUED						
JUL 22, 76	0600	20	.3	2900	29.0	--	6.1	80	--	--	
JUL 22, 76	1200	20	.3	3200	31.0	8.3	7.1	97	--	--	
JUL 22, 76	1600	20	.3	2900	33.0	8.7	8.0	113	--	--	
						LINE 245					
JUL 19, 76	1235	50	.3	4000	29.4	8.8	8.3	110	40.	--	
			2.7	6800	28.6	8.6	5.4	72	70.	--	
JUL 24, 76	1200	50	.3	3700	29.1	--	7.8	103	--	--	
			2.1	4900	29.0	--	6.5	87	--	--	
						LINE 250					
JUL 24, 76	1145	40	.3	4900	29.2	--	7.4	99	--	--	
			2.1	6500	28.9	--	6.1	81	--	--	
JUL 19, 76	1225	50	.3	6500	29.0	8.7	7.7	103	30.	--	
			2.7	7400	28.5	8.6	5.6	74	70.	--	
JUL 24, 76	1135	50	.3	7800	29.2	--	7.0	95	--	--	
			2.1	9200	29.0	--	5.6	77	--	--	
						LINE 260					
JUL 19, 76	1210	40	.3	6500	29.0	8.7	7.6	101	35.	--	
			2.1	7900	28.5	8.6	5.6	75	90.	--	
JUL 24, 76	1125	40	.3	10000	29.3	--	6.5	88	--	--	
			2.4	8800	30.6	--	4.3	60	--	--	
						LINE 310					
JUL 19, 76	1325	40	.3	11000	29.4	8.2	6.6	91	30.	60	
			3.0	14000	28.9	7.9	4.3	59	5.	--	
			6.1	20000	28.4	7.9	3.3	45	10.	--	
			9.1	35000	28.2	8.0	2.1	31	15.	--	
			14.0	37000	28.2	7.8	1.7	26	100.	--	
JUL 24, 76	0940	40	.3	15000	30.1	8.5	7.3	101	--	51	
			3.0	16000	30.1	8.2	6.1	85	--	--	
			6.1	19000	30.1	7.8	4.5	64	--	--	
			9.1	25000	30.1	7.9	4.2	61	--	--	
			12.8	27000	30.2	7.8	4.4	64	--	--	
						LINE 320					
JUL 19, 76	1305	35	.3	13000	29.0	8.3	7.7	105	0.	52	
			3.0	13000	28.9	8.1	6.1	84	20.	--	
			6.1	22000	28.5	8.0	3.1	44	10.	--	
			9.1	29000	28.2	7.9	1.8	26	15.	--	
			12.8	29000	28.2	8.0	1.6	23	80.	--	
JUL 24, 76	1000	35	.3	16000	30.0	8.2	6.1	85	--	38	
			3.0	19000	30.1	7.9	4.8	69	--	--	
			6.1	27000	30.6	7.8	4.1	61	--	--	
			9.1	31000	30.4	7.7	4.0	60	--	--	
			13.1	31000	30.9	7.7	3.2	49	--	--	
						LINE 321					
JUL 19, 76	1205	10	.3	7500	29.0	8.6	8.0	107	0.	55	

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 321 CONTINUED					
JUL 19, 76	1205	10	1.2	9000	29.0	8.6	7.3	99	5.	--
			2.4	9500	29.1	8.5	5.4	74	0.	--
JUL 24, 76	1015	10	.3	8000	30.0	8.3	6.9	95	--	49
			2.6	9500	30.1	8.1	4.3	59	--	--
					LINE 330					
JUL 19, 76	1130	20	.3	11000	29.0	8.3	5.5	75	20.	43
			3.0	12000	29.0	8.2	4.1	57	20.	--
			6.1	12000	29.0	8.3	3.6	49	50.	--
JUL 24, 76	1045	20	.3	13000	31.8	8.3	6.1	87	--	55
			2.7	13000	31.8	8.1	4.4	62	--	--
			5.2	14000	31.2	8.0	3.4	49	--	--
					LINE 340					
JUL 19, 76	1050	40	.3	14000	28.8	8.5	8.5	117	20.	52
			1.5	14000	28.8	8.5	7.1	97	10.	--
			3.0	15000	28.5	8.3	6.2	84	20.	--
			6.1	28000	28.2	8.0	3.0	42	20.	--
			9.1	34000	28.1	8.0	2.1	31	60.	--
			13.4	34000	28.5	7.8	3.2	48	< 500.	--
JUL 24, 76	1125	40	.3	19000	32.0	7.9	7.7	114	--	61
			3.0	29000	32.0	7.7	5.3	82	--	--
			6.1	35000	32.1	7.8	4.4	68	--	--
			9.1	35000	32.1	7.8	4.2	66	--	--
			13.7	37000	31.0	7.8	3.5	54	--	--
JUL 19, 76	1110	60	.3	13000	29.0	8.5	6.6	91	0.	43
			1.5	13000	28.9	8.4	5.6	76	10.	--
			3.4	13000	29.0	8.4	6.1	83	90.	--
JUL 24, 76	1100	60	.3	14000	32.0	8.4	9.3	133	--	53
			1.5	15000	31.5	8.4	6.4	92	--	--
			3.0	16000	31.0	7.8	1.7	24	--	--
					LINE 345					
JUL 19, 76	1030	20	.3	11000	28.9	8.5	6.7	92	0.	50
			1.5	11000	28.8	8.4	6.6	91	20.	--
			3.0	11000	28.8	8.4	5.9	80	90.	--
JUL 24, 76	1200	20	.3	16000	31.5	8.2	7.1	103	--	59
			3.0	15000	31.0	8.2	5.1	73	--	--
JUL 19, 76	1010	40	.3	13000	28.7	8.6	6.9	94	10.	53
			3.0	18000	28.5	8.4	4.3	60	10.	--
			6.1	33000	28.3	8.1	2.4	36	5.	--
			9.1	36000	28.3	8.0	1.9	29	20.	--
			12.2	36000	28.5	8.0	2.0	30	70.	--
JUL 24, 76	1145	40	.3	18000	32.1	8.3	7.8	112	--	78
			3.0	24000	32.0	7.9	5.3	79	--	--
			6.1	33000	32.0	7.9	4.7	74	--	--
			9.1	34000	32.0	7.8	4.5	71	--	--
			13.7	35000	31.8	7.8	4.6	71	--	--
					LINE 350					
JUL 19, 76	0945	50	.3	15000	28.7	8.7	7.4	101	30.	72
			3.0	21000	28.5	8.4	3.9	54	50.	--
			6.1	34000	28.1	8.0	2.4	36	0.	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS) (FIELD)	TEMPER-ATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATUR-ATION	TUR-BIDITY (JTU)	TRANS-PARENCY SECCHI DISK (CM)
					LINE 350 CONTINUED					
JUL 19, 76	0945	50	9.1	31000	28.4	8.0	2.5	36	5.	--
			10.7	36000	28.0	8.0	1.7	26	5.	--
			13.4	36000	28.2	8.0	1.8	27	240.	--
JUL 24, 76	1225	50	.3	17000	33.0	8.4	8.6	126	--	60
			3.0	27000	32.4	8.4	5.2	79	--	--
			6.1	33000	32.5	8.5	4.7	75	--	--
			9.1	35000	32.6	8.3	4.7	75	--	--
			13.4	37000	32.9	7.8	4.6	74	--	--
					LINE 353					
JUL 19, 76	1335	50	.5	17000	29.9	8.6	9.8	137	20.	90
			3.0	30000	29.0	8.2	6.0	88	20.	--
			6.1	40000	28.4	8.0	3.5	53	20.	--
			9.1	43000	28.1	7.9	2.4	37	20.	--
			13.1	42000	28.1	7.8	2.0	31	50.	--
JUL 24, 76	1250	50	.3	17000	31.0	8.6	9.9	142	10.	81
			3.0	36000	30.3	8.3	6.2	97	15.	--
			6.1	39000	30.2	8.3	6.1	96	10.	--
			9.1	38000	30.6	8.3	6.2	97	10.	--
			12.5	38000	30.9	8.3	6.6	104	100.	--
					LINE 359					
JUL 19, 76	1235	70	.5	16000	29.0	8.4	7.7	106	30.	60
			2.3	16000	29.0	8.3	6.3	88	40.	--
JUL 24, 76	1235	70	.3	17000	31.0	8.5	8.5	121	10.	73
			1.5	17000	30.2	8.4	7.4	104	20.	--
			2.4	17000	30.7	8.4	7.4	105	15.	--
					LINE 370					
JUL 19, 76	1405	20	.3	17000	30.1	8.4	8.8	124	25.	83
			2.4	28000	28.9	8.0	4.6	67	30.	--
JUL 24, 76	1310	20	.3	13000	30.9	8.5	9.8	138	10.	66
			1.5	19000	30.6	8.4	8.8	125	15.	--
			2.4	21000	31.0	8.3	6.9	101	30.	--
JUL 19, 76	1205	50	.3	21000	29.4	8.4	8.2	117	10.	67
			3.0	34000	28.8	8.1	4.0	59	10.	--
			6.1	43000	28.2	8.0	2.6	40	10.	--
			9.1	44000	28.1	7.9	1.6	24	10.	--
			12.5	42000	28.1	7.8	1.7	27	20.	--
JUL 24, 76	1215	50	.3	20000	30.2	8.5	9.3	133	10.	84
			3.0	31000	29.9	8.3	7.1	108	10.	--
			6.1	40000	29.9	8.3	7.1	111	5.	--
			9.1	40000	29.9	8.3	5.5	87	0.	--
			13.7	40000	30.0	8.3	5.8	91	50.	--
					LINE 375					
JUL 19, 76	1145	40	.5	22000	29.3	8.4	8.6	124	10.	73
			3.0	38000	28.4	8.1	3.8	57	10.	--
			6.1	41000	28.4	8.0	3.0	47	5.	--
			9.1	44000	28.1	7.9	1.8	28	10.	--
			12.2	42000	28.1	7.8	2.0	31	30.	--
JUL 24, 76	1200	40	.5	26000	30.1	8.5	8.2	121	0.	98
			3.0	40000	29.8	8.3	6.6	103	5.	--
			6.1	40000	29.8	8.3	6.5	101	0.	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 375 CONTINUED					
JUL 24, 76	1200	40	9.1	40000	29.9	8.3	6.5	101	0.	--
			12.8	40000	29.9	8.3	6.6	103	5.	--
					LINE 377					
JUL 19, 76	1130	80	.3	20000	29.3	8.4	8.5	120	10.	89
			1.5	28000	29.0	8.2	6.1	88	10.	--
			2.9	32000	29.1	8.0	3.9	58	20.	--
JUL 24, 76	1150	80	.3	20000	30.2	8.5	7.7	110	10.	74
			1.5	30000	30.1	8.4	7.1	107	10.	--
			2.7	30000	30.3	8.3	6.5	97	20.	--
					LINE 380					
JUL 19, 76	1425	20	.3	32000	29.9	8.2	8.8	133	10.	112
			1.5	36000	29.0	8.2	8.2	125	10.	--
			3.4	40000	28.9	7.9	4.0	62	20.	--
JUL 24, 76	1330	20	.3	27000	31.0	8.5	10.9	162	0.	87
			1.5	31000	30.9	8.4	8.5	131	0.	--
			3.7	38000	30.8	8.3	7.2	115	5.	--
JUL 19, 76	1440	40	.3	32000	29.9	8.3	11.4	173	20.	105
			3.0	33000	29.1	8.2	9.2	137	10.	--
			6.1	43000	28.4	8.0	7.6	119	20.	--
			9.1	44000	28.2	8.0	5.2	79	40.	--
			13.7	44000	28.2	7.9	4.8	74	60.	--
JUL 24, 76	1130	40	.6	38000	29.9	8.4	6.5	101	0.	106
			3.0	40000	29.9	8.4	6.2	95	0.	--
			6.1	40000	29.5	8.3	6.0	92	0.	--
			9.1	40000	29.7	8.3	6.1	93	0.	--
			13.4	40000	29.9	8.3	5.9	92	0.	--
					LINE 389					
JUL 19, 76	1055	60	.3	34000	29.0	8.2	7.8	116	5.	89
			3.0	40000	28.6	8.0	3.8	57	10.	--
			6.1	44000	28.5	8.0	4.9	77	10.	--
			9.1	46000	28.3	8.0	4.2	66	5.	--
			12.8	43000	28.2	8.0	3.3	51	20.	--
JUL 21, 76	0020	60	1.5	32000	29.0	6.0	8.3	122	--	--
			7.0	38000	28.0	6.1	5.9	89	--	--
			10.1	39000	28.0	6.1	5.5	83	--	--
			13.1	40000	28.0	6.1	4.9	74	--	--
JUL 21, 76	0230	60	1.5	38000	28.5	--	5.2	79	--	--
			5.2	38000	28.0	--	5.3	80	--	--
			8.2	38000	28.0	--	5.5	83	--	--
			11.3	38000	28.0	--	5.8	88	--	--
JUL 21, 76	0420	60	1.5	42000	28.4	--	6.6	102	35.	--
			4.6	42000	28.5	--	6.8	105	40.	--
			7.6	44000	28.2	--	6.7	103	50.	--
			10.7	44000	28.2	--	7.0	108	60.	--
			13.7	44000	28.0	--	7.4	114	30.	--
JUL 21, 76	0730	60	.3	36000	28.2	8.3	7.3	109	--	--
			3.0	40000	28.2	8.2	6.9	105	--	--
			6.1	41000	28.2	8.2	6.4	99	--	--
			9.1	41000	28.5	8.2	6.6	101	--	--
			13.7	41000	28.0	8.1	6.7	103	--	--
JUL 21, 76	1045	60	.6	40000	29.2	7.9	5.6	86	--	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS) (FIELD)	TEMPER-ATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATUR-ATION	TUR-BIDITY (JTU)	TRANS-PARENCY SECCHI DISK (CM)
					LINE 389 CONTINUED					
JUL 21, 76	1045	60	2.7	40000	29.0	7.9	5.3	82	--	--
			5.2	41000	29.0	7.9	5.4	83	--	--
			7.9	41000	28.9	7.9	5.1	78	--	--
			11.9	40000	28.2	7.8	5.4	82	--	--
JUL 21, 76	1230	60	.3	34000	29.9	8.0	6.7	101	--	--
			3.0	40000	30.8	8.0	6.3	100	--	--
			6.1	40000	30.7	8.0	5.9	92	--	--
			9.1	40000	30.7	8.0	5.6	88	--	--
			13.1	41000	29.8	8.0	5.2	83	--	--
JUL 21, 76	1430	60	.5	32000	30.0	8.2	7.0	106	--	--
			3.0	36000	29.9	8.2	6.2	95	--	--
			6.1	38000	29.5	8.2	5.7	88	--	--
			9.1	39000	29.8	8.2	5.7	89	--	--
			12.8	40000	30.0	8.1	5.1	80	--	--
JUL 21, 76	1645	60	.6	29000	30.0	8.4	9.8	147	--	--
			3.0	34000	29.9	8.4	9.5	144	--	--
			6.1	36000	29.9	8.2	8.1	125	--	--
			9.1	36000	29.9	8.2	7.5	115	--	--
			13.1	40000	29.9	8.0	6.3	99	--	--
JUL 21, 76	1930	60	.6	26000	29.9	8.2	8.0	117	--	--
			3.0	30000	29.8	8.1	7.3	109	--	--
			6.1	34000	29.2	8.0	--	--	--	--
			9.1	36000	29.2	7.9	6.4	97	--	--
			12.2	34000	29.3	7.9	6.1	92	--	--
JUL 21, 76	2125	60	.6	23000	29.5	8.2	7.9	113	--	--
			3.0	23000	29.4	8.2	8.5	121	--	--
			6.1	26000	29.0	8.0	7.3	106	--	--
			9.1	37000	28.8	8.0	6.2	94	--	--
			12.2	34000	28.8	7.9	4.9	73	--	--
JUL 22, 76	0035	60	.6	30000	26.4	8.1	7.1	100	--	--
			3.0	33000	26.2	8.0	6.6	95	--	--
			6.1	35000	26.3	7.9	5.9	86	--	--
			9.1	36000	27.0	7.9	5.8	85	--	--
			12.2	36000	26.0	7.9	7.1	103	--	--
JUL 24, 76	1115	60	.6	36000	29.9	8.4	6.5	100	5.	108
			3.0	40000	29.8	8.4	6.2	97	5.	--
			6.1	40000	29.9	8.4	6.1	96	0.	--
			9.1	40000	29.9	8.4	6.1	96	5.	--
			13.7	40000	30.0	8.3	6.1	96	5.	--
					LINE 392					
JUL 19, 76	1035	20	.3	38000	29.0	8.2	8.0	123	10.	110
			3.0	43000	28.2	8.1	5.9	92	10.	--
			6.1	46000	28.2	8.0	3.7	58	10.	--
			9.1	46000	28.1	8.0	3.0	47	10.	--
			12.2	46000	28.1	8.0	3.4	52	20.	--
			14.6	46000	28.1	8.0	3.2	50	25.	--
JUL 24, 76	1100	20	.6	38000	29.9	8.4	6.5	101	5.	148
			3.0	40000	29.8	8.4	6.2	97	5.	--
			6.1	41000	29.8	8.3	5.7	91	0.	--
			9.1	41000	29.8	8.3	5.6	89	0.	--
			12.2	41000	30.0	8.3	5.8	92	5.	--
			15.8	40000	30.1	8.3	5.3	83	10.	--
					LINE 420					
JUL 19, 76	1040	20	.3	11000	29.2	8.2	7.2	99	60.	--
			1.2	12000	29.1	8.0	5.9	80	60.	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS) (FIELD)	TEMPER-ATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATUR-ATION	TUR-BIDITY (JTU)	TRANS-PARENCY SECCHI DISK (CM)
					LINE 420 CONTINUED					
JUL 24, 76	0945	20	.3	13000	29.0	--	7.3	100	--	--
			1.2	13000	29.0	--	7.7	105	--	--
					LINE 430					
JUL 19, 76	1050	20	.3	12000	29.0	8.7	7.0	96	40.	--
			1.2	12000	29.0	8.6	6.5	89	70.	--
JUL 24, 76	1000	20	.3	13000	29.6	--	5.9	81	--	--
			1.2	13000	29.6	--	5.8	79	--	--
					LINE 440					
JUL 19, 76	1100	30	.3	18000	29.1	8.6	6.5	91	10.	--
			1.5	14000	29.0	8.7	6.3	87	20.	--
JUL 24, 76	1015	30	.3	15000	29.0	--	6.1	84	--	--
			1.5	15000	29.0	--	5.9	81	--	--
					LINE 450					
JUL 19, 76	1120	30	.3	14000	29.4	8.7	7.1	99	15.	--
			2.1	16000	29.1	8.6	5.6	78	80.	--
JUL 24, 76	1030	30	.3	17000	29.3	--	6.7	94	--	--
			1.8	17000	29.2	--	6.3	88	--	--
					LINE 460					
JUL 19, 76	1135	50	.3	13000	29.4	8.7	7.2	99	20.	--
			2.1	13000	28.8	8.6	6.2	86	50.	--
JUL 24, 76	1050	50	.3	16000	29.2	--	6.1	85	--	--
			1.2	20000	29.3	--	3.3	46	--	--
					LINE 470					
JUL 19, 76	1145	60	.3	11000	28.9	8.6	7.6	104	--	--
			2.1	10000	28.5	8.6	6.3	84	60.	--
JUL 24, 76	1105	60	.3	12000	29.0	--	6.3	87	--	--
			2.1	14000	29.0	--	3.8	52	--	--
					LINE 680					
JUL 19, 76	1330	20	.3	370	28.5	8.3	6.5	84	50.	--
			2.4	250	28.7	8.4	6.3	82	60.	--
JUL 21, 76	1035	20	.3	380	28.1	7.9	6.8	87	60.	--
			2.7	380	28.1	7.9	6.5	83	80.	--
JUL 21, 76	1215	20	.3	340	28.0	8.4	6.7	86	25.	--
			2.7	350	28.0	8.4	6.2	79	55.	--
JUL 21, 76	1415	20	.3	340	28.5	8.3	6.9	90	40.	--
			2.1	340	28.5	8.4	6.9	90	50.	--
JUL 21, 76	1615	20	.3	340	28.5	8.6	7.8	101	20.	--
			2.4	340	28.5	8.7	7.4	96	25.	--
JUL 21, 76	1820	20	.3	370	27.6	--	5.7	73	40.	--
			2.4	360	27.8	--	5.5	71	50.	--
JUL 21, 76	2200	20	.3	330	26.5	--	5.6	71	60.	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 680 CONTINUED					
JUL 21, 76	2200	20	1.4	350	26.8	--	5.7	72	--	--
			2.4	330	25.5	--	5.7	71	--	--
JUL 21, 76	2400	20	.3	380	27.0	--	5.5	70	60.	--
			1.4	380	26.7	--	5.4	68	--	--
			2.4	350	26.0	--	5.3	66	--	--
JUL 22, 76	0200	20	.3	370	26.7	--	5.6	71	50.	--
			1.4	380	26.2	--	5.7	71	--	--
			2.4	340	25.9	--	6.0	75	--	--
JUL 22, 76	0400	20	.3	340	27.3	--	6.0	77	50.	--
			1.4	360	27.3	--	5.6	72	--	--
			2.4	360	26.7	--	6.0	76	--	--
JUL 22, 76	0545	20	.3	340	27.2	--	5.6	71	20.	--
			1.4	340	27.0	--	5.7	72	--	--
			2.4	340	26.6	--	5.9	75	--	--
JUL 24, 76	1250	20	.3	380	29.0	--	6.8	89	--	--
			2.7	380	29.0	--	6.8	89	--	--
JUL 21, 76	1000	40	.3	400	28.6	8.4	6.0	78	65.	--
			3.0	--	28.8	8.4	--	--	--	--
			6.1	--	28.9	8.4	--	--	--	--
JUL 21, 76	1200	40	.3	350	28.5	8.6	6.8	88	35.	--
			3.0	370	28.9	8.7	6.6	87	350.	--
			6.1	370	29.0	8.4	6.8	89	200.	--
JUL 21, 76	1400	40	.3	350	29.0	8.4	6.5	86	65.	--
			3.0	360	29.1	8.4	6.5	86	105.	--
			6.1	350	29.4	8.3	6.7	88	105.	--
JUL 21, 76	1600	40	.3	360	29.9	8.6	7.2	96	10.	--
			3.0	360	29.1	8.5	6.9	91	25.	--
			6.1	360	30.0	8.6	6.8	91	50.	--
JUL 21, 76	1800	40	.3	370	27.9	--	5.5	71	30.	--
			3.0	360	28.2	--	5.4	69	45.	--
			6.1	360	28.6	--	5.3	69	80.	--
JUL 21, 76	2245	40	.3	360	27.5	--	5.4	69	70.	--
			3.0	360	27.3	--	5.4	69	--	--
			6.1	340	25.5	--	5.8	72	--	--
JUL 22, 76	0030	40	.3	390	27.0	--	5.7	72	60.	--
			3.0	390	26.8	--	5.8	73	--	--
			6.1	350	26.4	--	5.9	75	--	--
JUL 22, 76	0240	40	.3	350	27.5	--	6.1	78	60.	--
			3.0	350	27.5	--	5.8	74	--	--
			6.1	350	26.7	--	5.7	72	--	--
JUL 22, 76	0440	40	.3	340	27.0	--	5.6	71	60.	--
			3.0	340	26.8	--	5.7	72	--	--
			6.1	340	26.1	--	5.8	72	--	--
JUL 22, 76	0610	40	.3	340	27.5	--	5.3	68	50.	--
			3.0	340	27.4	--	5.4	69	--	--
			6.1	340	27.0	--	5.7	72	--	--
					LINE 904					
JUL 19, 76	1000	20	.3	48000	25.3	8.2	6.3	95	10.	--
			3.0	48000	25.3	8.2	6.1	92	10.	--
			6.1	48000	25.3	8.2	5.8	88	10.	--
			9.1	48000	25.3	8.1	4.9	74	15.	--

TABLE 2A--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 904 CONTINUED						
JUL 19, 76	1000	20	11.3	48000	25.3	8.0	3.7	56	15.	--
JUL 24, 76	0900	20	.6	40000	29.3	6.5	6.3	97	5.	97
			3.0	40000	29.5	8.4	6.2	95	10.	--
			6.1	40000	29.2	6.4	6.2	95	5.	--
			9.1	44000	28.8	8.3	5.0	78	5.	--
			13.4	47000	28.0	8.0	1.7	26	15.	--

TABLE 2B--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 180						
JUL 19, 76	1355	20	.3	--	.23	.55	.32	--	.86	--	--	10.0
			13.4	--	.07	.16	.13	--	.46	--	--	7.4
JUL 21, 76	1630	20	.3	--	.19	.43	.21	--	.89	--	--	8.8
			11.6	--	.08	.21	.24	--	.48	--	--	5.4
JUL 21, 76	1800	20	.3	--	.18	.51	.21	--	.88	--	--	11.0
			11.6	--	.08	.20	.22	--	.54	--	--	9.9
JUL 21, 76	2040	20	.3	--	.14	.52	.19	--	.86	--	--	7.2
			13.4	--	.12	.34	.24	--	.79	--	--	9.6
JUL 21, 76	1340	20	.3	--	.17	.52	.21	--	.87	--	--	8.7
			11.6	--	.11	.26	.24	--	.52	--	--	9.0
JUL 21, 76	0900	20	.3	--	.17	.41	.24	--	.80	--	--	9.4
			11.6	--	.10	.29	.24	--	.67	--	--	6.6
JUL 21, 76	1100	20	.3	--	.17	.42	.22	--	.84	--	--	9.2
			11.6	--	.10	.25	.23	--	.47	--	--	7.3
JUL 21, 76	2215	20	.3	--	.13	.38	.17	--	.89	--	--	8.8
			13.1	--	.13	.32	.23	--	.75	--	--	12.0
JUL 22, 76	0235	20	.3	--	.15	.55	.18	--	.93	--	--	9.0
			13.4	--	.09	.24	.21	--	.62	--	--	7.8
JUL 22, 76	0410	20	.3	--	.08	.36	.11	--	.89	--	--	8.2
			13.4	--	.06	.18	.10	--	.71	--	--	10.0
JUL 22, 76	0615	20	.3	--	.07	.23	.09	--	.86	--	--	8.6
			13.4	--	.06	.16	.11	--	.58	--	--	5.7
JUL 22, 76	0800	20	.3	--	.08	.22	.10	--	.80	--	--	6.4
			12.2	--	.07	.18	.12	--	.55	--	--	5.6
JUL 22, 76	0020	20	.3	--	.15	.53	.18	--	.93	--	--	6.8
			13.1	--	.10	.29	.26	--	.75	--	--	9.0
JUL 24, 76	0905	20	.3	--	.04	.27	.07	--	.86	--	--	7.0
			12.5	--	.02	.15	.05	--	.51	--	--	13.0
						LINE 230						
JUL 19, 76	1255	40	.3	--	.00	.01	.01	--	.28	--	--	10.0
JUL 24, 76	1220	40	.3	--	.01	.01	.00	--	.23	--	--	6.8
						LINE 242						
JUL 21, 76	2400	20	.3	--	.00	.04	.01	--	.24	--	--	8.9
JUL 21, 76	1600	20	.3	--	.00	.04	.01	--	.25	--	--	7.0
JUL 21, 76	1800	20	.3	--	.00	.07	.01	--	.28	--	--	15.0
JUL 21, 76	2000	20	.3	--	.00	.03	.00	--	.25	--	--	9.2
JUL 21, 76	2200	20	.3	--	.00	.05	.01	--	.25	--	--	8.8
JUL 22, 76	0200	20	.3	--	.00	.03	.01	--	.22	--	--	8.6
JUL 22, 76	0400	20	.3	--	.00	.04	.01	--	.26	--	--	7.8
JUL 22, 76	0600	20	.3	--	.00	.03	.01	--	.25	--	--	7.7

TABLE 28--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 242 CONTINUED						
JUL 22, 76	1200	20	.3	--	.00	.08	.01	--	.25	--	--	9.0
JUL 22, 76	1600	20	.3	--	.00	.04	.01	--	.26	--	--	8.5
						LINE 260						
JUL 19, 76	1210	40	.3	--	.00	.02	.01	--	.34	--	--	9.1
JUL 24, 76	1125	40	.3	--	.00	.02	.00	--	.35	--	--	7.2
						LINE 310						
JUL 19, 76	1325	40	.3	--	.18	.20	.27	--	.73	--	--	8.1
			14.0	--	.05	.12	.10	--	.34	--	--	8.6
JUL 24, 76	0940	40	.3	--	.02	.04	.03	--	.65	--	--	9.0
			12.8	--	.02	.15	.03	--	.28	--	--	5.0
						LINE 321						
JUL 19, 76	1205	10	.3	--	.00	.02	.00	--	.37	--	--	9.2
			2.4	--	.00	.02	.00	--	.40	--	--	7.2
JUL 24, 76	1015	10	.3	--	.00	.02	.01	--	.32	--	--	8.0
						LINE 330						
JUL 19, 76	1130	20	.3	--	.07	.14	.04	--	.55	--	--	10.0
JUL 24, 76	1045	20	.3	--	.00	.08	.01	--	.53	--	--	9.2
						LINE 340						
JUL 19, 76	1050	40	.3	--	.00	.03	.01	--	.51	--	--	8.8
			13.4	--	.06	.13	.08	--	.38	--	--	17.0
JUL 24, 76	1125	40	.3	--	.00	.03	.00	--	.40	--	--	8.2
			13.7	--	.00	.08	.03	--	.18	--	--	7.2
JUL 19, 76	1110	60	.3	--	.00	.04	.04	--	.55	--	--	9.6
JUL 24, 76	1100	60	.3	--	.00	.05	.01	--	.53	--	--	8.8
						LINE 359						
JUL 19, 76	1235	70	.5	--	.00	.04	.01	--	.41	--	--	10.0
JUL 24, 76	1235	70	.3	--	.00	.02	.01	--	.38	--	--	6.8
						LINE 370						
JUL 19, 76	1405	20	.3	--	.00	.03	.01	--	.30	--	--	6.6
JUL 24, 76	1310	20	.3	--	.00	.03	.01	--	.31	--	--	8.9
						LINE 375						
JUL 19, 76	1145	40	.5	--	.00	.02	.01	--	.25	--	--	6.8
			12.2	--	.06	.09	.08	--	.14	--	--	8.2
JUL 24, 76	1200	40	.5	--	.00	.02	.01	--	.22	--	--	9.0

TABLE 28--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
					LINE 375 CONTINUED							
JUL 24, 76	1200	40	12.8	--	.00	.07	.02	--	.07	--	--	2.6
					LINE 377							
JUL 19, 76	1130	80	.3	--	.00	.02	.01	--	.29	--	--	6.2
JUL 24, 76	1150	80	.3	--	.00	.02	.01	--	.29	--	--	6.2
					LINE 380							
JUL 19, 76	1425	20	.3	--	.00	.04	.01	--	.17	--	--	6.6
JUL 24, 76	1330	20	.3	--	.00	.03	.01	--	.20	--	--	6.2
					LINE 389							
JUL 19, 76	1055	60	.3	--	.01	.05	.00	--	.17	--	--	10.0
			12.8	--	.04	.10	.05	--	.08	--	--	2.0
JUL 21, 76	0020	60	1.5	--	.01	--	--	--	.25	--	--	6.5
			13.1	--	.04	--	--	--	.20	--	--	4.2
JUL 21, 76	0230	60	1.5	--	.00	.07	.02	--	.13	--	--	7.3
			11.3	--	.00	.01	.01	--	.14	--	--	5.6
JUL 21, 76	0420	60	1.5	--	.00	.10	.01	--	.09	--	--	5.1
			13.7	--	.01	.01	.00	--	.14	--	--	2.2
JUL 21, 76	0730	60	.3	--	.00	.03	.01	--	.12	--	--	6.8
			13.7	--	.00	.02	.01	--	.06	--	--	6.0
JUL 21, 76	1045	60	.6	--	.01	.03	.00	--	.09	--	--	5.6
			11.9	--	.00	.03	.01	--	.06	--	--	4.2
JUL 21, 76	1230	60	.3	--	.01	.01	.00	--	.13	--	--	10.0
			13.1	--	.00	.05	.01	--	.07	--	--	5.0
JUL 21, 76	1430	60	.5	--	.01	.02	.00	--	.14	--	--	5.6
			12.8	--	.01	.04	.00	--	.07	--	--	8.0
JUL 21, 76	1645	60	.6	--	.01	.02	.00	--	.19	--	--	9.4
			13.1	--	.01	.04	.00	--	.11	--	--	8.1
JUL 21, 76	1930	60	.6	--	.01	.02	.00	--	.24	--	--	7.2
			12.2	--	.01	.04	.00	--	.13	--	--	7.7
JUL 21, 76	2125	60	.6	--	.01	.02	.00	--	.25	--	--	6.4
			12.2	--	.01	.06	.00	--	.17	--	--	6.8
JUL 22, 76	0035	60	.6	--	.00	.13	.02	--	.17	--	--	--
			12.2	--	.00	.06	.01	--	.21	--	--	4.2
JUL 24, 76	1115	60	.6	--	.00	.05	.01	--	.13	--	--	5.0
			13.7	--	.00	.09	.02	--	.05	--	--	2.4
					LINE 440							
JUL 19, 76	1100	30	.3	--	.00	.03	.01	--	.15	--	--	13.0
			1.5	--	.00	--	--	--	.11	--	--	14.0
JUL 24, 76	1015	30	.3	--	--	.03	.01	--	--	--	--	--
					LINE 470							
JUL 19, 76	1145	60	.3	--	.00	.02	.01	--	.34	--	--	6.3

TABLE 28--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 470 CONTINUED						
JUL 24, 76	1105	60	.3	--	.00	.04	.01	--	.33	--	--	8.2
						LINE 680						
JUL 19, 76	1330	20	.3	--	.00	.01	.00	--	.18	--	--	6.2
			2.4	--	.01	.01	.00	--	.19	--	--	9.2
JUL 21, 76	1035	20	.3	--	.01	.07	.00	--	.15	--	--	4.8
JUL 21, 76	1215	20	.3	--	.01	.03	.00	--	.15	--	--	7.4
JUL 21, 76	1415	20	.3	--	.00	.02	.00	--	.15	--	--	6.6
JUL 21, 76	1615	20	.3	--	.00	.01	.00	--	.14	--	--	9.4
JUL 21, 76	1820	20	.3	--	.00	.02	.01	--	.15	--	--	9.2
JUL 21, 76	2200	20	.3	--	.00	.01	.01	--	.16	--	--	--
JUL 21, 76	2400	20	.3	--	.00	.04	.01	--	.15	--	--	--
JUL 22, 76	0200	20	.3	--	.00	.01	.00	--	.14	--	--	7.8
JUL 22, 76	0400	20	.3	--	.00	.01	.00	--	.14	--	--	5.6
JUL 22, 76	0545	20	.3	--	.00	.00	.00	--	.14	--	--	5.2
JUL 24, 76	1250	20	.3	--	.01	.01	.00	--	.16	--	--	5.4
			2.7	--	.00	.00	.00	--	.16	--	--	6.2
JUL 21, 76	1000	40	.3	--	.00	.01	.00	--	.14	--	--	7.2
JUL 21, 76	1200	40	.3	--	.00	.01	.00	--	.14	--	--	11.0
JUL 21, 76	1400	40	.3	--	.00	.01	.00	--	.15	--	--	7.8
JUL 21, 76	1600	40	.3	--	.00	.02	.00	--	.14	--	--	8.7
JUL 21, 76	1800	40	.3	--	.00	.01	.00	--	.15	--	--	6.3
JUL 21, 76	2245	40	.3	--	.00	.01	.00	--	.15	--	--	6.2
JUL 22, 76	0030	40	.3	--	.00	.02	.00	--	.15	--	--	7.8
JUL 22, 76	0240	40	.3	--	.00	.01	.00	--	.14	--	--	6.8
JUL 22, 76	0440	40	.3	--	.00	.01	.00	--	.14	--	--	6.0
JUL 22, 76	0610	40	.3	--	.01	.03	.00	--	.16	--	--	.7
						LINE 904						
JUL 19, 76	1000	20	.3	--	.00	.11	.01	--	.03	--	--	7.0
			11.3	--	.02	.13	.03	--	.06	--	--	5.1
JUL 24, 76	0900	20	.6	--	.00	.06	.01	--	.02	--	--	8.6
			13.4	--	.04	.10	.11	--	.10	--	--	2.8

TABLE 2C--QUALITY OF WATER IN THE TRINITY-SAN JACINTO ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 180					
JUL 19, 76	1355	20	.3	8460	--	--	--	--	--	--	--
			13.4	32900	--	--	--	--	--	--	--
JUL 21, 76	1340	20	.3	11300	--	--	--	--	--	--	--
JUL 22, 76	0800	20	.3	12600	--	--	--	--	--	--	--
JUL 22, 76	0020	20	.3	9330	--	--	--	--	--	--	--
JUL 24, 76	0905	20	.3	12500	--	--	--	--	--	--	--
			12.5	28300	--	--	--	--	--	--	--
						LINE 260					
JUL 19, 76	1210	40	.3	6380	--	--	--	--	--	--	--
JUL 24, 76	1125	40	.3	9220	--	--	--	--	--	--	--
						LINE 330					
JUL 24, 76	1045	20	.3	12500	--	--	--	--	--	--	--
						LINE 359					
JUL 19, 76	1235	70	.5	16000	--	--	--	--	--	--	--
						LINE 389					
JUL 21, 76	0020	60	13.1	40900	--	--	--	--	--	--	--
JUL 21, 76	0230	60	1.5	39000	--	--	--	--	--	--	--
			11.3	38900	--	--	--	--	--	--	--
JUL 21, 76	0420	60	1.5	42100	--	--	--	--	--	--	--
			13.7	44500	--	--	--	--	--	--	--
						LINE 440					
JUL 24, 76	1015	30	.3	15000	--	--	--	--	--	--	--
						LINE 680					
JUL 21, 76	1615	20	.3	341	--	--	--	--	--	--	--
JUL 21, 76	2200	20	.3	343	--	--	--	--	--	--	--
JUL 24, 76	1250	20	.3	363	--	--	--	--	--	--	--
JUL 21, 76	1800	40	.3	478	--	--	--	--	--	--	--
						LINE 904					
JUL 19, 76	1000	20	.3	47500	--	--	--	--	--	--	--
JUL 24, 76	0900	20	.6	39800	--	--	--	--	--	--	--

Brazos Estuary

The Brazos estuary, which has an area of about 3 square miles (8 km^2), consists of the tidal parts of the Brazos River and parts of the Intracoastal Waterway (Figure 4). Although Freeport Harbor is not directly connected with the estuary, wastes from industrial operations around the harbor are discharged into the estuary. Water depth at mean low water is about 10 feet (3.0 m) in the river and about 15 feet (4.6 m) in the Intracoastal Waterway.

Water-quality data (Table 3) were collected during October 1975 and February and August 1976.

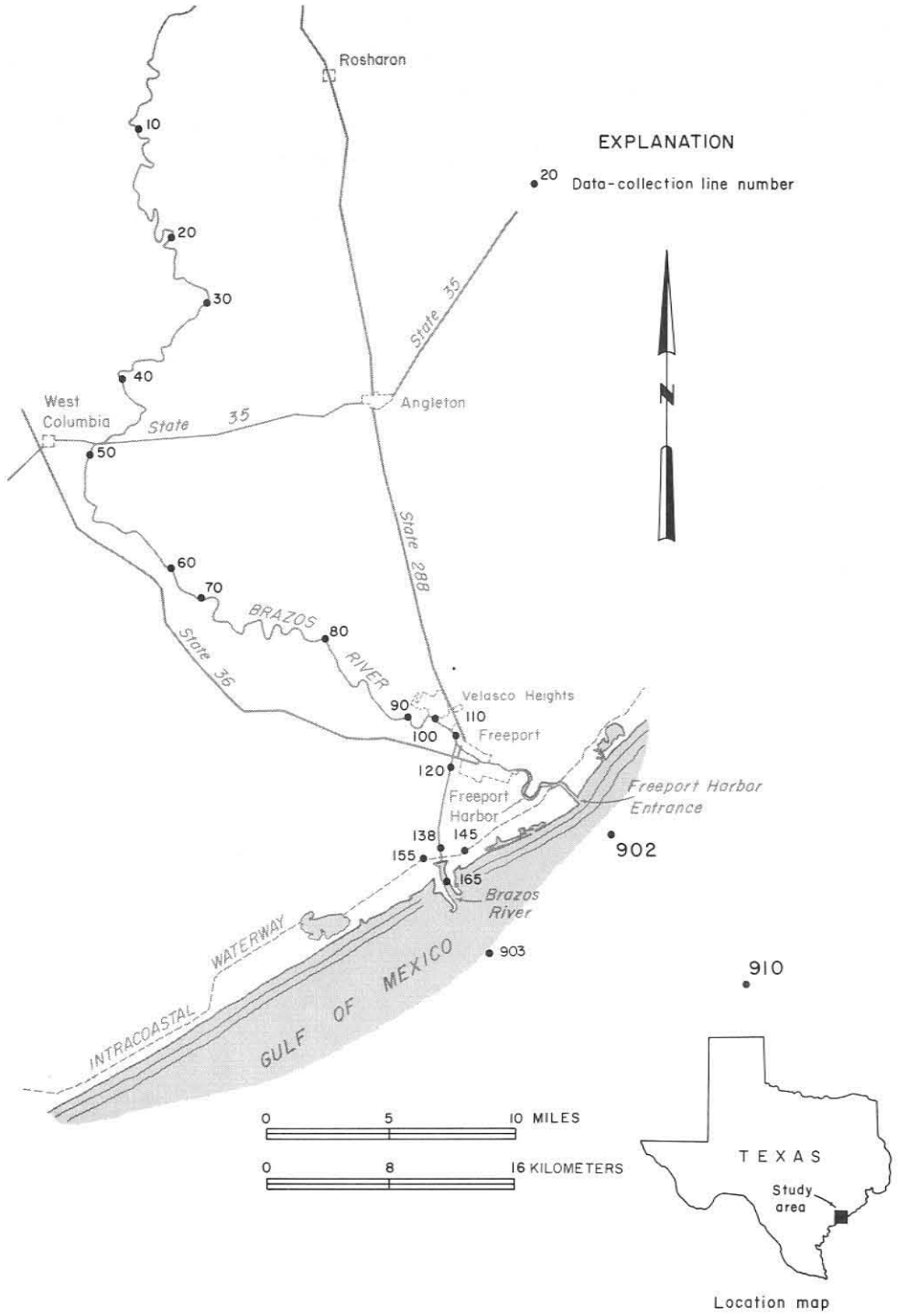

Figure 4

Data-Collection Sites in the Brazos Estuary

Base by U.S. Geological Survey, 1956

TABLE 3A--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 90					
OCT 23, 75	0930	2	.3	10000	23.9	8.1	8.0	96	--	75
			1.5	11000	24.2	8.1	6.6	80	--	--
			3.0	36000	28.0	8.1	1.5	22	--	--
			5.8	36000	28.4	8.0	1.2	17	--	--
FEB 04, 76	1320	2	.3	2700	17.2	8.2	6.7	70	60.	--
			1.5	3000	18.0	8.3	6.1	65	80.	--
			2.4	5000	17.0	8.2	6.7	70	--	--
			3.0	43000	19.1	8.4	2.8	35	5.	--
			4.6	43000	20.0	8.4	3.2	41	35.	--
AUG 18, 76	1200	2	.3	3700	30.8	8.2	6.2	97	--	38
			1.5	4700	30.1	8.1	5.0	79	--	--
			2.1	11000	31.0	7.8	5.0	70	--	--
			3.0	42000	34.9	7.4	1.0	17	--	--
			5.2	42000	34.6	7.1	1.1	19	--	--
					LINE 110					
OCT 23, 75	0955	1	.3	18000	25.2	8.3	7.2	91	--	86
			1.5	39000	28.2	8.7	5.3	78	--	--
			3.4	40000	28.5	8.8	5.1	76	--	--
FEB 04, 76	1400	1	.3	11000	18.8	8.3	5.3	58	50.	--
			1.5	20000	19.1	8.4	5.8	66	25.	--
			3.0	40000	19.5	8.6	5.7	72	25.	--
AUG 18, 76	1140	1	.3	14000	31.2	7.5	5.1	73	--	48
			.9	18000	31.2	7.4	4.9	70	--	--
			1.8	30000	31.0	6.6	4.8	73	--	--
OCT 23, 75	1000	2	.3	18000	25.2	8.3	7.3	92	--	--
			1.5	31000	27.0	8.4	5.6	78	--	--
			3.0	40000	28.5	8.8	5.5	82	--	--
FEB 04, 76	1415	2	.3	9700	18.4	8.2	6.6	72	40.	--
			1.5	21000	19.0	8.4	5.7	65	40.	--
			3.4	40000	19.0	8.6	5.5	69	40.	--
AUG 18, 76	1130	2	.3	14000	31.9	7.8	4.8	69	--	59
			.9	14000	--	--	--	--	--	--
			1.5	32000	32.0	6.9	4.6	72	--	--
			3.4	42000	31.5	6.3	4.4	70	--	--
OCT 23, 75	1020	3	.3	19000	25.5	8.2	6.9	88	--	90
			1.5	26000	27.1	8.4	3.9	53	--	--
			3.0	40000	28.2	8.7	4.7	69	--	--
FEB 04, 76	1430	3	.3	14000	18.9	8.3	6.5	72	40.	--
			1.8	35000	18.7	8.5	6.1	74	25.	--
AUG 18, 76	1150	3	.3	18000	31.9	7.5	4.5	65	--	48
			1.5	42000	31.0	6.6	4.5	73	--	--
					LINE 138					
OCT 23, 75	1035	2	.3	28000	26.0	8.4	6.1	82	--	--
			1.5	30000	26.1	8.4	5.6	77	--	--
			3.0	38000	27.8	8.6	3.9	57	--	--
			5.5	42000	26.6	8.4	5.3	78	--	--
FEB 04, 76	1445	2	.3	13000	18.0	8.3	6.9	74	40.	--
			1.5	21000	18.5	8.4	6.0	67	30.	--
			3.0	37000	19.0	8.6	5.7	69	35.	--

TABLE 3A--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 138 CONTINUED						
FEB 04, 76	1445	2	5.2	34000	19.0	8.6	6.0	72	30.	--
AUG 18, 76	1015	2	.3	18000	31.4	7.9	4.5	65	--	52
			1.5	37000	32.0	7.5	4.4	70	--	--
			3.0	42000	31.3	7.4	4.2	68	--	--
			4.9	30000	31.1	7.7	4.4	68	--	--
				LINE 903						
AUG 18, 76	1045	31	.5	53000	29.4	8.2	7.0	117	--	174
			3.0	53000	29.5	8.2	6.8	113	--	--
			6.1	53000	29.5	8.2	6.5	108	--	--
			9.1	53000	29.4	8.1	6.5	108	--	--
			12.2	53000	29.5	8.2	6.0	100	--	--

TABLE 3B--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 90						
OCT 23, 75	0930	2	.3	7.8	.01	.09	.00	--	.12	1.5	--	--
			5.8	3.1	.35	.32	.06	--	.08	--	--	--
FEB 04, 76	1320	2	.3	3.5	.00	.12	.01	--	.15	2.2	--	--
			4.6	1.0	.19	.71	.18	--	.11	--	--	--
AUG 18, 76	1200	2	.3	9.2	.04	.03	.00	--	.07	.6	--	8.0
			5.2	3.1	.01	.26	.09	--	.07	--	--	--
						LINE 110						
OCT 23, 75	1000	2	.3	6.7	.06	.11	.01	--	.07	2.5	--	6.6
			3.0	3.0	.14	1.50	.03	--	.06	6.1	--	8.6
FEB 04, 76	1415	2	.3	2.1	.00	.25	.05	--	.13	2.4	--	--
			3.4	1.3	.04	4.50	.12	--	.08	2.1	--	--
AUG 18, 76	1130	2	.3	7.5	.06	.08	.01	--	.06	.8	--	6.5
			3.4	2.7	.07	1.60	.03	--	.08	4.3	--	7.1
						LINE 138						
OCT 23, 75	1035	2	.3	--	.12	.43	.02	--	.07	1.8	--	7.0
			5.5	--	.08	1.00	.04	--	.11	--	--	--
FEB 04, 76	1445	2	.3	--	.01	.34	.04	--	.12	2.0	--	--
			5.2	--	.03	4.10	.09	--	.08	--	--	--
AUG 18, 76	1015	2	.3	--	.07	.18	.01	--	.06	1.0	--	4.1
			4.9	--	.08	.78	.02	--	.06	--	--	--
						LINE 903						
AUG 18, 76	1045	31	.5	.8	.00	.15	.01	--	.04	.7	--	6.4
			12.2	--	.00	.17	.01	--	.03	1.0	--	7.3

TABLE 3C--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 90					
OCT 23, 75	0930	2	.3	10300	120.0	190.0	--	259	410	3000	5720
			5.8	36500	330.0	860.0	--	199	1800	13000	24000
FEB 04, 76	1320	2	.3	2700	80.0	50.0	--	212	150	670	1470
			4.6	42600	330.0	940.0	--	214	2000	15000	27600
AUG 18, 76	1200	2	.3	3520	82.0	66.0	--	204	180	1000	2010
			5.2	41500	310.0	910.0	--	156	1900	15000	27200
						LINE 110					
OCT 23, 75	1000	2	.3	18000	130.0	350.0	--	242	750	5800	10700
			3.0	39600	320.0	870.0	--	200	1800	14000	25300
FEB 04, 76	1415	2	.3	10000	120.0	190.0	--	212	470	3000	5750
			3.4	42600	320.0	900.0	--	204	2100	15000	27200
AUG 18, 76	1130	2	.3	13800	140.0	270.0	--	190	630	4600	8330
			3.4	44600	340.0	1000.0	--	91	2300	16000	29500
						LINE 138					
OCT 23, 75	1035	2	.3	28200	--	--	--	--	--	--	--
FEB 04, 76	1445	2	.3	11300	--	--	--	--	--	--	--
AUG 18, 76	1015	2	.3	17800	--	--	--	--	--	--	--
						LINE 903					
AUG 18, 76	1045	31	.5	52500	400.0	1300.0	--	146	2600	20000	35800
			12.2	52100	--	--	--	--	--	--	--

TABLE 3D--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ALUMI-NUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)	
					LINE 110						
OCT 23, 75	1000	2	.3	2	2	--	--	0	--	--	
			3.0	1	1	--	--	0	--	--	

TABLE 3D--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 110					
OCT 23, 75	1000	2	.3	1.00	--	0	--	--	4	--	--
			3.0	10.00	--	0	--	--	29	--	--

TABLE 3D--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (PB) (UG/GM)
						LINE 110					
OCT 23, 75	1000	2	.3	--	--	30	--	--	2	--	--
			3.0	--	--	70	--	--	4	--	--

TABLE 3D--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITH-IUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	BOTTOM DEPOSIT MAN-GANESE (MN) (UG/GM)	DIS-SOLVED MER-CURY (HG) (UG/L)	TOTAL MER-CURY (HG) (UG/L)	BOTTOM DEPOSIT MER-CURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)
						LINE 110						
OCT 23, 75	1000	2	.3	50	10	--	--	.0	--	--	0	2100
			3.0	110	50	--	--	.0	--	--	2	3700

TABLE 3D--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)					
						LINE 110					
OCT 23, 75	1000	2	.3	40	--	--					
			3.0	140	--	--					

TABLE 3E--QUALITY OF WATER IN THE BRAZOS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
					LINE 110						
OCT 23, 75	1000	2	.3	--	--	.00	--	.03	--	.00	--

East Matagorda Estuary

The East Matagorda estuary, which has an area of about 56 square miles (145 km^2), consists of East Matagorda Bay, part of the Intracoastal Waterway, the tidal reaches of Caney Creek and Live Oak Bayou, and the tidal part of small tributaries (Figure 5). The maximum water depth at mean low water is 5 feet (1.5 m) in East Matagorda Bay and about 15 feet (4.6 m) in the Intracoastal Waterway.

Water-quality data (Table 4) were collected during October 1975 and February and August 1976.

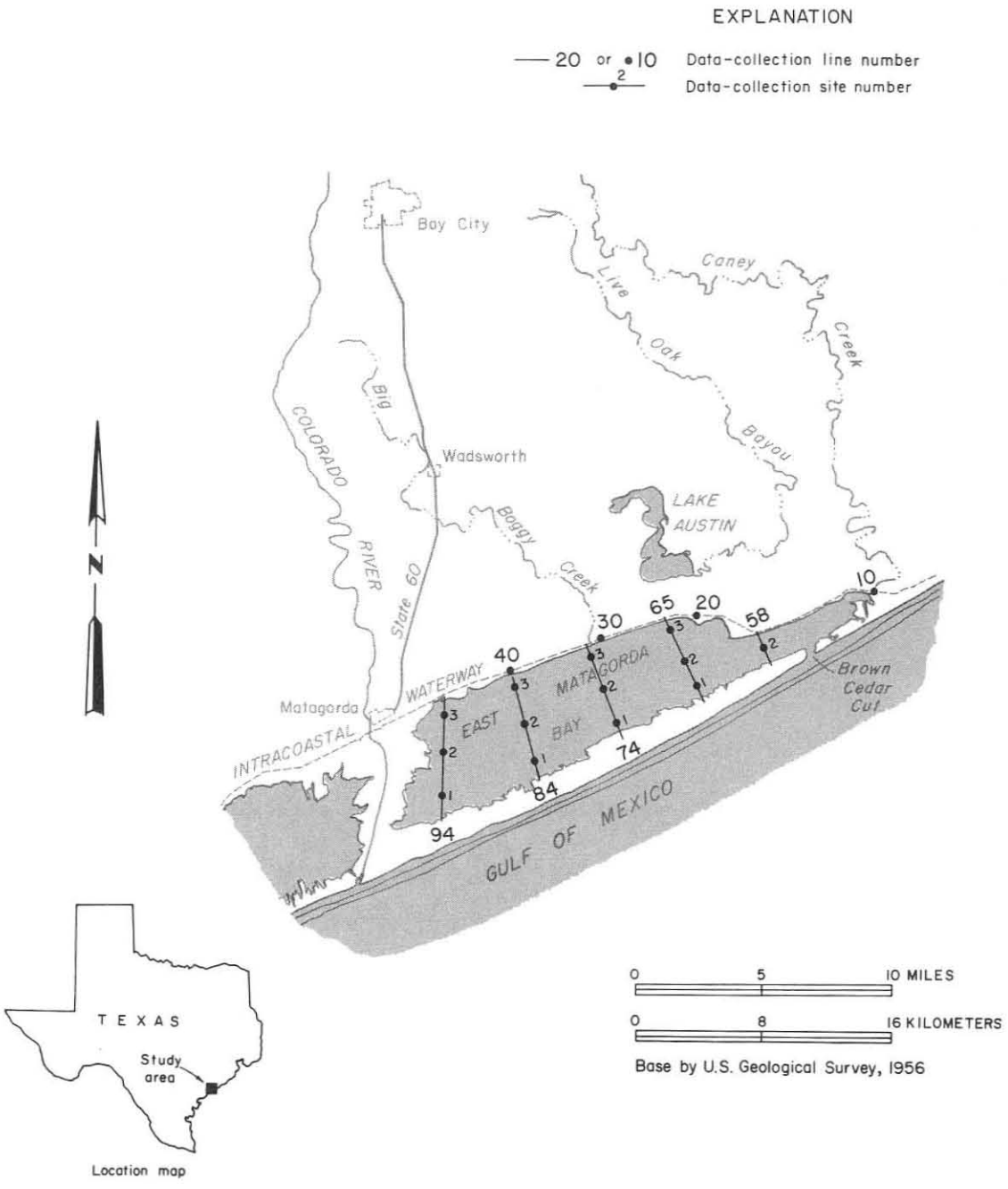

Figure 5.—Data-Collection Sites in the East Matagorda Estuary

TABLE 4A--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 58					
OCT 23, 75	1450	2	.3	35000	24.0	8.4	8.7	116	--	68
			.9	30000	23.9	8.3	8.3	109	--	--
FEB 05, 76	1100	2	.3	38000	18.1	8.2	6.1	74	40.	--
AUG 19, 76	1200	2	.3	44000	28.9	8.2	3.5	55	--	16
			.9	42000	29.0	8.2	4.0	62	--	--
					LINE 74					
OCT 23, 75	1520	2	.3	28000	23.0	8.4	11.2	142	--	68
			1.5	28000	23.0	8.4	8.6	109	--	--
FEB 05, 76	1125	2	.3	35000	18.1	8.5	6.8	82	30.	--
			.8	34000	18.1	8.5	6.9	82	30.	--
AUG 19, 76	1225	2	.3	31000	29.0	8.4	5.5	81	--	32
			1.2	31000	29.2	8.4	5.3	78	--	--
					LINE 94					
OCT 23, 75	1545	2	.3	27000	23.1	8.4	10.5	133	--	50
			1.2	22000	23.2	8.4	8.2	101	--	--
FEB 05, 76	1150	2	.3	35000	18.5	8.4	7.0	84	5.	--
			.8	35000	18.5	8.5	6.9	83	5.	--
AUG 19, 76	1250	2	.3	38000	29.3	8.2	4.9	75	--	35
			1.2	38000	29.2	8.2	4.9	75	--	--

TABLE 4B--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 58						
OCT 23, 75	1450	2	.3	--	.01	.00	.00	--	.07	3.1	--	8.8
FEB 05, 76	1100	2	.3	--	.00	.05	.01	--	.06	2.3	--	--
AUG 19, 76	1200	2	.3	--	.02	.11	.01	--	.22	1.4	--	8.3
						LINE 74						
OCT 23, 75	1520	2	.3	6.4	.04	.06	.01	--	.10	1.9	--	--
FEB 05, 76	1125	2	.3	.7	.00	.03	.01	--	.06	1.9	--	--
AUG 19, 76	1225	2	.3	6.9	.00	.03	.01	--	.10	1.5	--	7.9
						LINE 94						
OCT 23, 75	1545	2	.3	--	.00	.01	.01	--	.08	1.4	--	10.0
FEB 05, 76	1150	2	.3	--	.01	.04	.00	--	.04	.7	--	--
AUG 19, 76	1250	2	.3	--	.00	.07	.01	--	.07	1.0	--	7.3

TABLE 4C--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 58					
OCT 23, 75	1450	2	.3	35300	--	--	--	--	--	--	--
FEB 05, 76	1100	2	.3	39000	--	--	--	--	--	--	--
AUG 19, 76	1200	2	.3	44400	--	--	--	--	--	--	--
						LINE 74					
OCT 23, 75	1520	2	.3	28300	240.0	690.0	--	188	1300	9500	17700
FEB 05, 76	1125	2	.3	33200	270.0	760.0	--	181	1500	12000	21300
AUG 19, 76	1225	2	.3	32100	260.0	770.0	--	174	1500	11000	20000
						LINE 94					
OCT 23, 75	1545	2	.3	27000	--	--	--	--	--	--	--
FEB 05, 76	1150	2	.3	33500	--	--	--	--	--	--	--
AUG 19, 76	1250	2	.3	38200	--	--	--	--	--	--	--

TABLE 40--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ALUMI-NUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)	
						LINE 58					
OCT 23, 75	1450	2	.3	0	2	--	--	0	--	--	
			.9	--	--	--	3	--	--	< 10.00	
						LINE 74					
OCT 23, 75	1520	2	1.5	--	--	--	7	--	--	< 10.00	
						LINE 94					
OCT 23, 75	1545	2	1.2	--	--	--	8	--	--	< 10.00	

TABLE 4D--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 58					
OCT 23, 75	1450	2	.3	.00	--	0	--	--	2	--	--
			.9	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 74					
OCT 23, 75	1520	2	1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 94					
OCT 23, 75	1545	2	1.2	--	--	--	--	< 10.00	--	--	< 10.00

TABLE 4D--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (PB) (UG/GM)
						LINE 58					
OCT 23, 75	1450	2	.3	--	--	80	--	--	0	--	--
			.9	--	.0	--	--	--	--	--	< 10.00
						LINE 74					
OCT 23, 75	1520	2	1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 94					
OCT 23, 75	1545	2	1.2	--	.0	--	--	--	--	--	< 10.00

TABLE 40--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	BOTTOM DEPOSIT MANGANESE (MN) (UG/GM)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	BOTTOM DEPOSIT MERCURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)
						LINE 58						
OCT 23, 75	1450	2	.3	110	40	--	--	.0	--	--	2	5000
			.9	--	--	--	120	--	--	.1	--	--
						LINE 74						
OCT 23, 75	1520	2	1.5	--	--	--	340	--	--	.0	--	--
						LINE 94						
OCT 23, 75	1545	2	1.2	--	--	--	280	--	--	.3	--	--

TABLE 4D--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)
						LINE 58
OCT 23, 75	1450	2	.3	30	--	--
			.9	--	--	20.00
						LINE 74
OCT 23, 75	1520	2	1.5	--	--	20.00
						LINE 94
OCT 23, 75	1545	2	1.2	--	--	20.00

TABLE 4E--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 58					
OCT 23, 75	1450	2	.9	--	.0	--	.0	--	.0	--	.4
						LINE 74					
OCT 23, 75	1520	2	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 94					
OCT 23, 75	1545	2	1.2	--	.0	--	.0	--	.0	--	.0

TABLE 4E--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 58					
OCT 23, 75	1450	2	.9	--	.5	--	.0	--	.0	--	.0
						LINE 74					
OCT 23, 75	1520	2	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 94					
OCT 23, 75	1545	2	1.2	--	.0	--	.0	--	.0	--	.0

TABLE 4E--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTACHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL MALATHION (UG/L)	TOTAL DIAZINON (UG/L)
						LINE 58					
OCT 23, 75	1450	2	.9	--	.0	--	.0	--	--	--	--
						LINE 74					
OCT 23, 75	1520	2	1.5	--	.0	--	.0	--	--	--	--
						LINE 94					
OCT 23, 75	1545	2	1.2	--	.0	--	.0	--	--	--	--

TABLE 4E--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 58					
OCT 23, 75	1450	2	.9	--	.0	.00	--	.00	--	.00	--
						LINE 74					
OCT 23, 75	1520	2	1.5	--	.0	.00	--	.00	--	.00	--
						LINE 94					
OCT 23, 75	1545	2	1.2	--	.0	--	--	--	--	--	--

TABLE 4E--QUALITY OF WATER IN THE EAST MATAGORDA ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION$_N$ (UG/KG)
						LINE 58					
OCT 23, 75	1450	2	.9	--	0.	--	.0	--	.0	--	--
						LINE 74					
OCT 23, 75	1520	2	1.5	--	0.	--	.0	--	.0	--	--
						LINE 94					
OCT 23, 75	1545	2	1.2	--	0.	--	.0	--	.0	--	--

Colorado Estuary

The Colorado estuary, which has an area of about 2 square miles (5 km^2), consists of the tidal part of the Colorado River and part of the Intracoastal Waterway (Figure 6). The minimum depth at mean low water is about 6 feet (1.8 m) in the river channel and about 15 feet (4.6 m) in the Intracoastal Waterway.

Water-quality data (Table 5) were collected during October 1975 and February and August 1976.

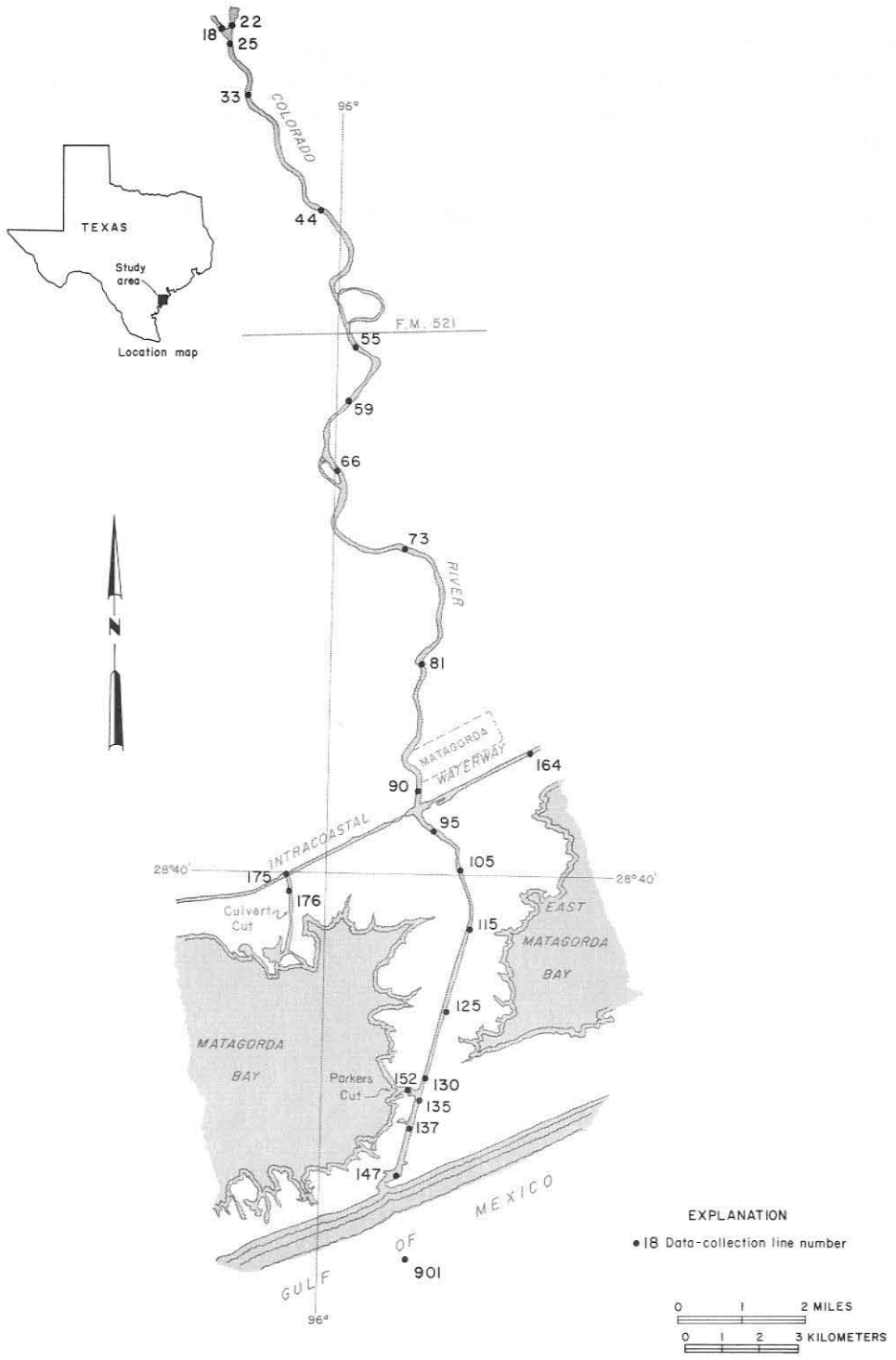

Figure 6

Data-Collection Sites in the Colorado Estuary

Base by U.S. Geological Survey, 1956

TABLE 5A--QUALITY OF WATER IN THE COLORADO ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 81					
OCT 23, 75	1350	2	.3	6500	23.5	8.2	8.8	105	--	88
			1.5	11000	22.9	8.2	7.7	91	--	--
			3.0	36000	23.5	8.2	5.9	79	--	--
			6.1	41000	23.2	8.1	6.1	82	--	--
			9.1	36000	23.2	8.1	6.2	82	--	--
			12.2	43000	23.3	8.1	6.0	82	--	--
FEB 05, 76	1255	2	.3	5800	18.0	8.2	9.8	105	5.	--
			1.5	5800	17.0	8.0	7.8	82	10.	--
			3.0	44000	16.0	8.1	7.0	86	5.	--
			6.1	46000	16.8	8.0	7.2	89	20.	--
			9.8	47000	18.9	8.0	6.5	88	80.	--
AUG 19, 76	1415	2	.3	3000	30.0	8.4	4.6	61	--	58
			1.5	17000	29.9	8.1	2.9	41	--	--
			3.0	47000	29.5	8.2	2.6	42	--	--
			6.1	47000	29.4	8.1	2.2	35	--	--
			9.4	47000	30.0	7.8	2.0	32	--	--
					LINE 130					
FEB 05, 76	1535	2	.3	39000	17.0	8.1	6.5	77	20.	--
			1.5	48000	17.0	8.1	5.4	68	25.	--
			2.7	48000	18.0	8.0	5.8	73	30.	--
AUG 19, 76	1445	2	.3	23000	30.0	8.4	5.2	75	--	70
			1.8	49000	29.9	8.3	4.3	70	--	--
			4.0	49000	30.0	8.3	3.7	61	--	--
					LINE 137					
OCT 23, 75	1655	2	.3	21000	23.6	8.2	9.2	115	--	84
			1.5	36000	23.2	8.2	8.0	105	--	--
			3.0	39000	23.4	8.2	7.6	101	--	--
			5.5	46000	23.4	8.3	7.4	103	--	--
					LINE 147					
OCT 23, 75	1650	2	.3	34000	23.2	8.2	8.5	110	--	40
			1.5	36000	23.2	8.3	7.5	99	--	--
			3.0	39000	23.8	8.2	7.3	99	--	--
FEB 05, 76	1550	2	.3	48000	16.2	8.1	5.8	71	40.	--
			.9	48000	17.0	8.1	5.7	71	50.	--
AUG 19, 76	1505	2	.3	40000	30.0	8.3	3.8	59	--	59
			1.2	49000	30.0	8.3	3.5	57	--	--
					LINE 164					
OCT 23, 75	1620	2	.3	30000	24.0	8.1	7.7	101	--	45
			1.5	30000	23.3	8.1	7.7	100	--	--
			4.0	30000	23.0	8.1	7.5	96	--	--
FEB 05, 76	1215	2	.3	30000	17.8	8.2	6.6	78	50.	--
			1.5	30000	18.0	8.2	7.0	82	50.	--
			3.0	31000	18.5	8.2	6.9	79	90.	--
			4.6	35000	18.5	8.2	6.8	82	100.	--
AUG 19, 76	1320	2	.3	31000	30.0	8.2	4.9	74	--	59
			1.5	32000	29.8	8.2	3.9	59	--	--
			3.0	37000	29.8	8.2	3.6	55	--	--

TABLE 5A--QUALITY OF WATER IN THE COLORADO ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 164 CONTINUED					
AUG 19, 76	1320	2	4.9	42000	29.6	8.2	3.5	55	--	--
					LINE 175					
OCT 23, 75	1330	2	.3	24000	24.1	8.1	7.8	99	--	61
			1.5	29000	23.0	8.1	7.0	89	--	--
			3.0	24000	23.0	8.1	7.2	89	--	--
			4.6	29000	23.9	8.1	6.9	90	--	--
FEB 05, 76	1510	2	.3	33000	17.8	8.0	5.9	70	5.	--
			1.5	36000	18.6	8.0	5.3	65	30.	--
			4.0	40000	19.0	8.0	5.4	68	30.	--
AUG 19, 76	1350	2	.3	24000	30.0	8.2	4.1	60	--	--
			2.1	27000	30.0	8.2	3.9	57	--	--
			4.3	42000	30.0	8.2	3.3	52	--	--

TABLE 5B--QUALITY OF WATER IN THE COLORADO ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 81						
OCT 23, 75	1350	2	.3	9.3	.22	.00	.01	--	.11	1.1	--	5.6
			12.2	--	.03	.06	.01	--	.07	1.3	--	--
FEB 05, 76	1255	2	.3	2.4	.02	.02	.01	--	.06	.7	--	--
			9.8	--	.00	.21	.01	--	.37	1.5	--	--
AUG 19, 76	1415	2	.3	9.0	.00	.00	.00	--	.05	1.3	--	6.1
			9.4	--	.01	.50	.07	--	.19	.9	--	--
						LINE 130						
FEB 05, 76	1535	2	.3	1.1	.01	.08	.01	--	.06	.8	--	--
			2.7	--	.00	.10	.00	--	.06	.6	--	--
AUG 19, 76	1445	2	.3	5.6	.01	.02	.00	--	.04	1.5	--	5.3
			4.0	--	.00	.16	.01	--	.11	1.3	--	--
						LINE 137						
OCT 23, 75	1655	2	.3	5.3	.15	.00	.00	--	.06	1.5	--	3.8
			5.5	--	.00	.01	.01	--	.14	1.2	--	--
						LINE 164						
OCT 23, 75	1620	2	.3	3.7	.17	.06	.01	--	.07	1.1	--	5.4
			4.0	3.6	.15	.05	.01	--	.08	--	--	--
FEB 05, 76	1215	2	.3	--	.00	.06	.01	--	.09	1.1	--	--
			4.6	1.2	.01	.08	.01	--	.10	--	--	--
AUG 19, 76	1320	2	.3	4.8	.00	.10	.01	--	.05	1.2	--	3.4
			4.9	2.6	.00	.11	.01	--	.07	--	--	--

TABLE 5C--QUALITY OF WATER IN THE COLORADO ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (LAB)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 81					
OCT 23, 75	1350	2	.3	6250	99.0	130.0	--	251	250	1800	3450
			12.2	43100	--	--	--	--	--	--	--
FEB 05, 76	1255	2	.3	5850	110.0	130.0	--	285	260	1700	3260
			9.8	47000	--	--	--	--	--	--	--
AUG 19, 76	1415	2	.3	2920	64.0	70.0	--	222	130	770	1590
			9.4	47200	--	--	--	--	--	--	--
						LINE 130					
FEB 05, 76	1535	2	.3	39300	280.0	850.0	--	198	1500	12000	21700
			2.7	47700	--	--	--	--	--	--	--
AUG 19, 76	1445	2	.3	22600	200.0	550.0	--	195	1100	8300	14900
			4.0	46800	--	--	--	--	--	--	--
						LINE 137					
OCT 23, 75	1655	2	.3	24000	160.0	550.0	--	204	1100	7900	14500
			5.5	45600	--	--	--	--	--	--	--
						LINE 164					
OCT 23, 75	1620	2	.3	29700	230.0	750.0	--	184	1400	10000	18500
			4.0	29900	260.0	770.0	--	186	1500	11000	20000
FEB 05, 76	1215	2	.3	31400	--	--	--	--	--	--	--
			4.6	32000	270.0	790.0	--	204	1400	11000	20000
AUG 19, 76	1320	2	.3	31500	260.0	720.0	--	184	1500	11000	19700
			4.9	39800	340.0	990.0	--	165	2000	15000	27100

TABLE 5E--QUALITY OF WATER IN THE COLORADO ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 137					
OCT 23, 75	1655	2	.3	--	--	.00	--	.00	--	.00	--

Lavaca-Tres Palacios Estuary

The Lavaca-Tres Palacios estuary, which has an area of about 350 square miles (907 km^2), consists of the tidal parts of the Lavaca and Navidad Rivers, Tres Palacios Creek and other tributaries, Lavaca Bay, Cox Bay, Keller Bay, Carancahua Bay, Tres Palacios Bay, Matagorda Bay, Matagorda Bay Entrance Channel, Pass Cavallo, and part of the Intracoastal Waterway (Figure 7). Water depth at mean low water is 13 feet (4.0 m) or less in Matagorda Bay, except in the Matagorda Ship Channel, which is more than 40 feet (12.2 m) deep. Lavaca and Tres Palacios Bays are less than 8 feet (2.4 m) deep at mean low water, and Cox, Keller, and Carancahua Bays are less than 5 feet (1.5 m) deep. The rivers are generally less than 15 feet (4.6 m) deep.

Water-quality data (Table 6) were collected during October 1975 and February, April, June, and August 1976.

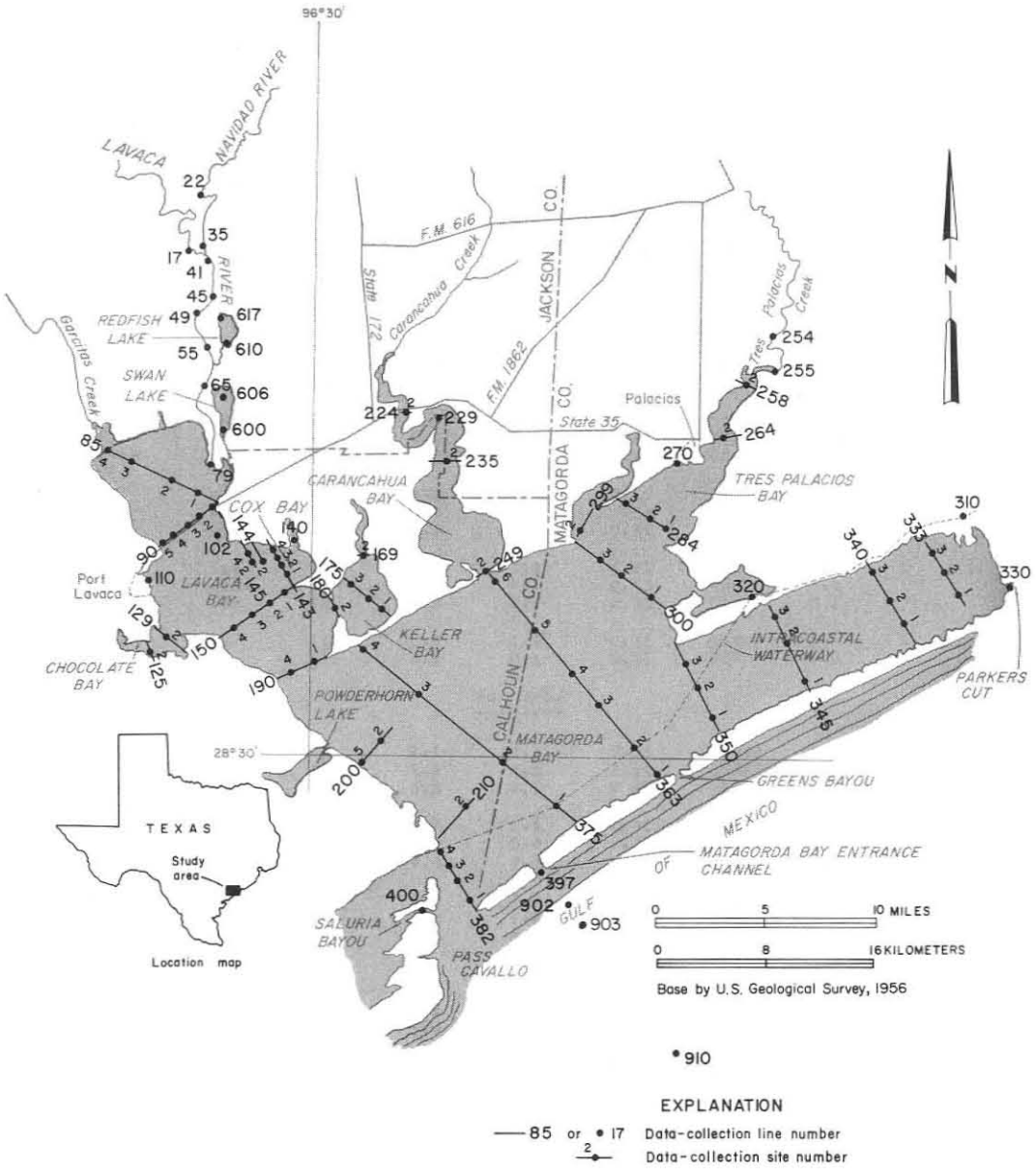

Figure 7.—Data-Collection Sites in the Lavaca-Tres Palacios Estuary

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 17					
OCT 23, 75	1225	2	.3	1700	25.0	8.5	6.6	79	10.	77
			1.5	1700	25.2	8.4	5.7	68	10.	--
			3.4	8600	25.7	7.9	.1	1	15.	--
FEB 03, 76	1130	2	.3	1000	14.3	8.2	11.7	114	30.	56
			.9	2200	14.7	8.2	10.9	107	--	--
			1.5	2600	15.0	8.2	9.1	90	30.	--
			3.0	3300	15.0	8.1	8.2	81	40.	--
APR 13, 76	1140	2	.3	370	22.0	7.8	6.4	73	40.	38
			1.5	410	22.0	7.8	6.0	68	50.	--
			3.4	410	22.0	7.7	5.8	66	50.	--
JUN 10, 76	1255	2	.3	370	28.0	8.6	10.4	133	45.	--
			.9	440	27.5	8.3	8.8	113	45.	--
			1.8	470	26.8	8.3	7.2	91	45.	--
			3.7	470	27.1	8.1	5.9	75	50.	--
AUG 17, 76	1330	2	.3	750	30.7	8.0	7.3	97	0.	53
			1.5	750	30.0	7.8	5.3	71	0.	--
			3.4	750	30.0	7.7	4.7	63	10.	--
					LINE 22					
OCT 23, 75	1240	2	.3	760	24.3	8.2	5.9	69	40.	48
			1.5	900	24.3	8.2	5.6	66	40.	--
			3.0	880	24.6	8.1	3.9	46	60.	--
FEB 03, 76	1100	2	.3	800	14.2	8.3	13.3	128	35.	76
			1.5	800	14.1	8.3	12.9	124	20.	--
			3.0	800	14.1	8.3	12.4	119	40.	--
APR 13, 76	1105	2	.3	450	22.5	7.9	6.4	73	80.	31
			1.5	450	22.0	7.8	6.0	68	90.	--
			2.7	460	22.0	7.5	5.8	66	90.	--
JUN 10, 76	1235	2	.3	390	28.0	8.2	7.9	101	40.	--
			1.5	400	27.0	7.9	6.7	85	105.	--
			3.0	370	26.9	7.9	6.9	87	50.	--
AUG 17, 76	1315	2	.3	950	31.0	8.1	8.2	111	0.	61
			2.4	950	30.0	8.0	5.8	77	5.	--
					LINE 65					
OCT 23, 75	1200	2	.3	11000	24.5	8.5	7.3	89	10.	83
			2.1	15000	24.5	8.5	5.7	71	15.	--
			4.3	22000	24.5	8.6	5.5	70	160.	--
FEB 03, 76	1200	2	.3	17000	14.5	8.2	9.7	100	50.	72
			1.5	17000	14.4	8.2	9.3	96	60.	--
			3.0	19000	14.3	8.2	8.4	87	70.	--
APR 13, 76	1030	2	.3	7000	22.0	8.1	6.8	79	30.	44
			1.8	11000	22.0	8.1	6.2	72	25.	--
			2.7	16000	21.5	8.0	3.4	40	20.	--
			3.7	27000	20.0	7.8	.0	0	20.	--
JUN 10, 76	1210	2	.3	650	28.7	8.0	7.0	91	50.	--
			2.1	650	27.3	7.8	5.5	71	50.	--
			4.3	650	27.4	7.8	6.0	77	55.	--
AUG 17, 76	1245	2	.3	2600	31.0	8.4	8.0	107	50.	48
			1.5	3000	30.0	8.3	6.6	88	20.	--

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 65 CONTINUED					
AUG 17, 76	1245	2	3.7	5200	30.2	8.3	4.3	59	60.	--
					LINE 85					
OCT 23, 75	1105	2	.3	25000	24.2	8.6	7.1	91	20.	70
			1.5	24000	24.2	8.6	7.2	92	15.	--
FEB 03, 76	1030	2	.3	28000	14.0	8.2	7.8	82	90.	37
			1.2	28000	14.0	8.2	8.0	84	80.	--
APR 13, 76	1005	2	.3	31000	23.0	8.3	7.3	94	25.	42
			1.5	35000	22.5	8.2	6.3	82	30.	--
JUN 10, 76	1145	2	.3	6600	27.3	7.0	7.8	101	70.	--
			1.5	7000	26.5	6.8	6.5	84	80.	--
AUG 17, 76	1055	2	.3	11000	29.5	8.4	6.8	93	--	58
			1.5	11000	29.2	8.5	6.4	88	50.	--
OCT 23, 75	1135	4	.3	18000	24.3	8.7	7.1	89	30.	40
			1.2	19000	24.4	8.7	7.1	89	30.	--
FEB 03, 76	1010	4	.3	28000	13.8	8.2	7.4	78	80.	31
			.9	28000	13.6	8.1	7.2	75	150.	--
APR 13, 76	0955	4	.3	28000	22.5	8.3	7.1	89	30.	42
			1.2	33000	22.5	8.2	5.7	73	40.	--
JUN 10, 76	1135	4	.3	7000	27.6	6.7	6.8	89	55.	--
			1.2	7400	27.1	6.6	6.0	78	70.	--
AUG 17, 76	1110	4	.3	7000	29.1	8.2	6.8	91	70.	38
			.9	7000	29.0	8.2	6.4	86	80.	--
					LINE 129					
OCT 21, 75	1425	2	.3	26000	23.5	8.3	8.3	105	95.	32
			2.4	35000	23.0	8.1	6.0	79	35.	--
FEB 02, 76	1530	2	.3	38000	15.2	8.2	9.0	103	5.	82
			1.5	39000	14.8	8.2	9.7	111	10.	--
			3.0	40000	14.5	8.1	8.1	93	30.	--
APR 12, 76	1535	2	.3	40000	23.6	8.0	7.0	96	25.	50
			1.5	40000	23.5	8.0	7.0	95	35.	--
			3.0	40000	23.4	8.0	6.3	85	25.	--
			4.3	40000	23.5	8.0	6.0	81	25.	--
JUN 10, 76	0845	2	.3	15000	26.6	8.3	6.3	84	30.	--
			1.8	16000	26.9	8.2	5.2	71	105.	--
			3.0	17000	27.1	8.1	4.9	66	80.	--
			4.0	21000	27.1	7.6	.4	5	--	--
AUG 17, 76	0855	2	.3	24000	29.0	8.2	5.9	84	40.	58
			1.5	26000	29.0	8.1	5.4	79	40.	--
			4.0	26000	29.0	7.8	3.8	55	180.	--
					LINE 143					
OCT 23, 75	1020	3	.3	32000	24.0	8.8	6.7	88	0.	65
			1.8	34000	24.0	8.8	6.4	85	0.	--
FEB 02, 76	1510	3	.3	36000	15.4	8.3	9.4	107	30.	85
			1.2	36000	15.7	8.3	8.7	100	90.	--
APR 13, 76	0920	3	.3	43000	22.5	8.3	6.6	89	25.	41

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 143 CONTINUED					
APR 13, 76	0920	3	1.8	43000	22.5	8.3	6.1	82	30.	--
JUN 10, 76	1025	3	.3	21000	27.0	7.6	6.7	91	--	--
			2.1	25000	26.6	7.6	6.4	89	50.	--
AUG 17, 76	1025	3	.3	29000	29.1	8.4	6.6	97	20.	69
			1.8	30000	29.1	8.6	6.4	95	25.	--
					LINE 150					
OCT 21, 75	1400	2	.3	35000	23.3	8.4	9.4	124	20.	119
			1.5	35000	23.6	8.4	7.8	104	5.	--
FEB 02, 76	1500	2	.3	35000	15.0	8.2	8.6	98	10.	93
			1.5	35000	15.3	8.1	8.1	92	10.	--
APR 13, 76	0915	2	.3	43000	23.0	8.3	6.6	90	20.	54
			2.1	43000	22.5	8.3	6.1	82	50.	--
JUN 10, 76	1015	2	.3	25000	26.8	7.9	6.4	89	10.	--
			2.1	26000	26.6	7.9	5.6	78	30.	--
AUG 17, 76	1015	2	.3	31000	29.6	8.5	6.6	99	15.	71
			2.1	31000	29.8	8.6	6.3	96	15.	--
					LINE 169					
OCT 23, 75	0945	2	.3	34000	23.5	8.8	6.4	84	0.	102
			1.2	34000	23.6	8.8	6.4	84	0.	--
FEB 03, 76	0930	2	.3	35000	13.5	8.3	7.4	81	30.	68
			.9	35000	13.3	8.2	7.0	77	35.	--
APR 13, 76	0900	2	.3	43000	22.5	8.4	6.0	81	25.	50
			1.2	43000	22.5	8.4	6.0	81	30.	--
JUN 10, 76	1000	2	.3	33000	26.9	8.3	6.3	91	15.	--
			1.2	33000	26.8	8.3	6.4	92	20.	--
AUG 17, 76	1000	2	.3	24000	28.8	8.2	5.8	83	15.	36
			1.2	24000	28.8	8.2	5.7	82	30.	--
					LINE 190					
OCT 21, 75	1335	2	.3	36000	23.0	8.3	8.4	110	0.	91
			.9	36000	23.9	8.3	8.3	111	10.	--
FEB 03, 76	0900	2	.3	37000	12.9	8.3	8.1	88	10.	112
			1.5	37000	12.9	8.3	7.8	85	30.	--
APR 13, 76	0830	2	.3	42000	22.0	8.3	6.7	89	30.	42
			1.5	42000	22.0	8.3	6.5	87	70.	--
JUN 10, 76	0940	2	.3	32000	27.1	8.3	5.8	85	20.	--
			2.1	32000	27.0	8.3	5.9	86	40.	--
AUG 17, 76	0930	2	.3	32000	29.0	8.3	6.6	97	20.	71
			1.2	32000	28.8	8.5	6.9	101	20.	--
OCT 21, 75	1305	4	.3	36000	23.0	8.4	7.8	103	5.	110
			1.5	36000	23.0	8.4	7.8	103	10.	--
			3.0	36000	23.0	8.4	8.0	105	10.	--
			4.6	39000	23.0	8.4	6.6	88	20.	--
			7.6	44000	24.0	8.3	3.9	55	45.	--
			11.0	46000	24.0	8.2	4.3	61	75.	--
OCT 23, 75	0945	4	.3	36000	23.0	8.3	6.8	89	15.	--

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 190 CONTINUED					
OCT 23, 75	0945	4	1.5	36000	23.0	8.3	7.0	92	10.	--
			4.6	44000	23.6	8.3	6.1	85	10.	--
			7.6	44000	23.5	8.2	4.8	67	35.	--
			11.6	44000	23.4	8.2	5.0	69	--	--
FEB 02, 76	1420	4	.3	39000	14.6	8.2	8.4	97	15.	94
			1.5	41000	14.5	8.2	8.3	95	15.	--
			3.0	41000	14.2	8.2	7.9	90	10.	--
			6.1	47000	14.4	8.1	7.5	88	20.	--
			10.1	48000	14.8	8.1	6.9	82	40.	--
FEB 03, 76	0810	4	.3	39000	13.2	8.2	8.4	92	30.	110
			3.0	42000	13.5	8.2	7.7	88	10.	--
			10.4	48000	13.4	8.2	7.3	85	10.	--
APR 12, 76	1505	4	.3	42000	23.3	8.1	6.8	93	--	58
			1.5	42000	23.3	8.1	6.8	93	--	--
			3.0	42000	23.2	8.0	6.8	93	--	--
			6.1	42000	23.2	8.1	6.7	92	--	--
			10.7	42000	23.2	8.1	6.5	89	15.	--
APR 13, 76	0825	4	.3	41000	22.7	8.3	6.4	85	60.	42
			3.0	41000	22.7	8.3	6.4	85	60.	--
			6.1	42000	22.7	8.3	6.1	82	60.	--
			11.3	42000	22.6	8.3	5.9	80	65.	--
JUN 10, 76	0915	4	.3	30000	26.7	8.1	6.0	85	20.	--
			1.5	32000	26.7	8.1	5.9	85	30.	--
			4.6	32000	26.6	8.0	5.8	84	30.	--
			7.6	32000	26.8	7.7	5.5	80	40.	--
			11.0	39000	27.0	7.5	4.4	66	110.	--
AUG 16, 76	1510	4	.3	33000	30.3	8.3	6.2	95	5.	104
			5.3	47000	29.5	8.1	4.4	71	0.	--
			10.7	51000	29.5	8.1	4.1	68	20.	--
AUG 17, 76	0915	4	.3	29000	29.4	8.4	5.5	82	0.	95
			5.3	30000	29.3	8.3	4.6	67	105.	--
			10.7	30000	29.3	8.3	4.5	67	25.	--
					LINE 200					
OCT 21, 75	1220	5	.3	28000	23.0	8.5	7.8	99	5.	56
			1.8	28000	23.5	8.5	7.9	101	0.	--
FEB 03, 76	0830	5	.3	41000	13.6	8.2	8.0	89	20.	100
			.9	41000	13.6	8.2	8.0	89	20.	--
APR 13, 76	0850	5	.3	42000	22.7	8.4	6.0	81	90.	41
			1.2	42000	22.7	8.4	5.9	80	90.	--
JUN 10, 76	1240	5	.3	34000	27.5	--	8.5	124	20.	61
			1.2	34000	27.9	--	8.6	127	30.	--
AUG 17, 76	0940	5	.3	34000	29.4	8.4	5.7	87	80.	80
			1.5	33000	29.4	8.4	6.1	92	10.	--
					LINE 229					
OCT 21, 75	1710	2	.3	21000	24.2	8.5	7.4	94	0.	45
			1.2	21000	24.2	8.5	7.5	95	155.	--
FEB 02, 76	1530	2	.3	26000	14.5	8.4	8.5	90	80.	23
			.9	24000	14.7	8.4	8.1	85	100.	--
APR 12, 76	1715	2	.3	36000	23.0	8.4	7.8	100	115.	28
			1.2	38000	23.0	8.3	7.4	99	70.	--

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 229 CONTINUED					
JUN 09, 76	1520	2	.3	25000	28.3	8.3	7.1	101	50.	70
			1.5	25000	28.0	8.3	7.4	104	35.	--
AUG 16, 76	1635	2	.3	11000	29.5	8.3	7.7	105	60.	30
			1.2	11000	29.8	8.3	7.6	105	60.	--
					LINE 264					
OCT 21, 75	1550	2	.3	29000	24.3	8.4	7.4	94	25.	44
			1.2	37000	26.0	8.4	7.2	100	40.	--
FEB 02, 76	1630	2	.3	33000	15.1	8.2	8.2	92	65.	44
			.9	33000	15.0	8.2	8.1	91	65.	--
APR 12, 76	1620	2	.3	39000	23.5	8.4	6.9	93	55.	28
			1.2	39000	23.5	8.3	7.5	101	60.	--
JUN 09, 76	1400	2	.3	28000	28.2	8.3	6.4	91	70.	90
			1.5	30000	30.2	8.3	5.9	88	105.	--
AUG 16, 76	1735	2	.3	16000	29.0	7.8	8.1	110	45.	36
			1.1	16000	29.0	7.8	8.5	116	50.	--
					LINE 299					
FEB 02, 76	1200	2	.3	39000	14.0	8.3	8.6	97	0.	119
			.9	39000	13.9	8.4	8.9	100	0.	--
APR 12, 76	1250	2	.3	42000	24.2	8.3	6.6	92	45.	52
			1.2	42000	24.6	8.3	6.8	96	45.	--
JUN 09, 76	1425	2	.3	32000	28.0	8.3	6.3	92	55.	80
			.9	32000	28.0	8.3	6.0	88	15.	--
			1.8	32000	28.6	8.2	5.9	87	130.	--
AUG 16, 76	1205	2	.3	24000	29.4	8.3	6.7	97	60.	32
			1.4	21000	29.6	8.3	6.1	87	25.	--
					LINE 300					
OCT 21, 75	0930	3	.3	39000	23.0	8.5	6.4	85	25.	79
			1.8	39000	23.0	8.5	6.5	87	30.	--
FEB 02, 76	1210	3	.3	39000	14.1	8.3	8.6	97	0.	133
			1.2	39000	14.2	8.3	8.4	94	0.	--
APR 12, 76	1300	3	.3	42000	23.4	8.3	7.0	96	0.	85
			1.5	42000	23.4	8.3	7.1	97	0.	--
JUN 09, 76	1435	3	.3	33000	27.6	8.2	6.8	100	15.	80
			.9	32000	27.6	8.2	6.8	99	20.	--
			1.8	32000	27.8	8.2	6.4	94	30.	--
AUG 16, 76	1235	3	.3	25000	29.3	8.3	6.6	96	5.	43
			1.8	24000	29.3	8.3	6.6	96	130.	--
					LINE 320					
OCT 21, 75	1110	2	.3	36000	23.0	8.1	5.6	74	15.	55
			1.8	37000	23.0	8.1	5.7	75	35.	--
			3.7	36000	23.0	8.1	5.8	76	35.	--
FEB 02, 76	1415	2	.3	33000	13.5	8.3	8.2	89	65.	25
			1.8	33000	13.6	8.3	8.1	88	85.	--
			3.7	33000	13.5	8.3	7.9	86	105.	--

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 320 CONTINUED					
APR 12, 76	1530	2	.3	24000	23.0	8.4	9.0	111	15.	61
			2.1	31000	23.0	8.4	7.9	101	20.	--
			4.0	29000	23.0	8.3	6.4	81	70.	--
JUN 10, 76	1155	2	.3	11000	27.5	8.2	7.1	95	65.	40
			.9	25000	27.5	8.3	6.6	94	60.	--
			2.1	24000	27.0	8.3	5.9	82	105.	--
			4.0	25000	27.5	8.3	5.6	79	155.	--
AUG 16, 76	1535	2	.3	24000	29.5	8.3	7.1	103	35.	41
			1.5	24000	29.5	8.2	6.9	100	40.	--
			4.3	24000	29.0	8.6	5.3	76	70.	--
					LINE 333					
OCT 21, 75	1255	1	.3	38000	22.6	8.4	6.7	88	30.	46
			1.4	38000	22.6	8.4	6.7	88	225.	--
FEB 02, 76	1300	1	.3	35000	14.0	8.2	8.6	96	30.	78
			.9	35000	14.3	8.2	8.5	95	35.	--
APR 12, 76	1445	1	.3	39000	24.0	8.4	7.3	99	20.	55
			1.2	39000	24.0	8.4	7.3	99	20.	--
JUN 10, 76	1025	1	.3	30000	25.8	8.3	5.6	78	5.	53
			.9	26000	25.8	8.2	5.4	75	20.	--
			1.8	30000	25.8	8.2	6.1	85	60.	--
AUG 16, 76	1440	1	.3	28000	29.0	8.4	6.6	96	25.	41
			1.2	28000	29.0	8.3	6.1	88	40.	--
					LINE 345					
OCT 21, 75	1245	1	.3	38000	22.5	8.3	6.1	80	15.	75
			1.2	38000	22.5	8.3	6.1	80	0.	--
FEB 02, 76	1400	1	.3	36000	14.0	8.3	8.0	89	15.	96
			.9	35000	14.0	8.3	7.8	87	15.	--
			1.8	35000	14.0	8.3	7.8	87	25.	--
FEB 02, 76	1345	1	.3	35000	14.1	8.3	8.0	89	25.	79
			1.2	35000	14.4	8.3	7.8	88	20.	--
APR 12, 76	1405	1	.3	43000	23.0	8.3	7.2	99	20.	105
			1.2	42000	23.0	8.3	7.2	99	15.	--
JUN 10, 76	1045	1	.3	34000	26.0	8.1	5.3	76	15.	80
			1.2	37000	26.0	8.2	5.8	84	45.	--
AUG 16, 76	1500	1	.3	30000	28.0	8.2	7.1	103	35.	46
			1.2	30000	29.0	8.2	7.1	104	40.	--
OCT 21, 75	1230	2	.3	34000	23.0	8.3	6.5	84	0.	63
			1.8	37000	23.0	8.3	6.4	84	5.	--
FEB 02, 76	1350	2	.5	35000	13.7	8.3	8.0	88	5.	200
			1.5	35000	13.7	8.3	8.0	88	5.	--
			2.7	35000	13.7	8.3	7.8	86	10.	--
APR 12, 76	1355	2	.3	41000	22.5	8.3	7.4	99	0.	173
			2.4	38000	23.0	8.3	7.4	99	0.	--
JUN 10, 76	1100	2	.3	37000	26.6	8.2	5.3	77	65.	65
			1.5	37000	26.4	8.2	5.2	75	195.	--
			2.7	37000	26.4	8.2	5.2	75	100.	--
AUG 16, 76	1505	2	.3	29000	29.0	8.1	6.8	100	15.	61

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 345 CONTINUED						
AUG 16, 76	1505	2	1.8	31000	29.0	8.0	6.7	99	50.	--
OCT 21, 75	1220	3	.3	36000	23.6	8.3	6.4	85	90.	22
			.9	35000	23.6	8.3	6.4	85	130.	--
APR 12, 76	1345	3	.3	37000	23.5	8.4	7.5	99	20.	48
			1.8	37000	23.0	8.4	6.7	88	30.	--
JUN 10, 76	1110	3	.3	25000	26.8	8.2	6.6	91	80.	50
			.9	25000	26.8	8.3	6.3	87	85.	--
			1.8	28000	26.8	8.3	5.7	80	110.	--
AUG 16, 76	1510	3	.3	25000	29.0	8.0	7.6	109	70.	28
			1.2	25000	29.0	8.0	7.5	107	130.	--
				LINE 350						
OCT 21, 75	1135	2	.3	42000	23.2	8.3	5.7	78	10.	87
			2.4	40000	23.2	8.3	5.8	78	30.	--
			4.9	42000	23.2	8.3	5.4	74	85.	--
FEB 02, 76	1235	2	.3	39000	14.4	8.3	8.2	93	0.	101
			1.5	39000	14.1	8.3	8.3	93	0.	--
			4.0	38000	14.3	8.2	7.8	89	0.	--
APR 12, 76	1330	2	.3	42000	23.0	8.1	6.9	95	5.	134
			1.5	42000	23.0	8.1	6.8	93	0.	--
			3.0	42000	22.9	8.1	6.8	93	0.	--
			4.3	42000	22.8	8.1	6.4	88	15.	--
JUN 10, 76	1125	2	.3	37000	27.4	8.2	6.4	95	50.	83
			2.1	37000	27.0	8.2	5.8	85	60.	--
			4.0	37000	26.8	8.2	5.6	82	95.	--
AUG 16, 76	1315	2	.3	37000	29.6	8.3	6.4	99	15.	105
			2.3	37000	29.4	8.2	5.9	91	15.	--
			4.6	38000	29.5	8.2	4.9	75	25.	--
				LINE 363						
OCT 21, 75	1025	1	.3	43000	23.8	8.4	6.0	83	0.	166
			2.1	43000	24.0	8.4	6.0	83	10.	--
FEB 02, 76	1300	1	.3	40000	14.4	8.3	8.7	100	0.	121
			2.1	39000	14.6	8.3	8.2	93	0.	--
APR 12, 76	1355	1	.3	42000	23.2	8.2	7.4	101	10.	112
			2.4	42000	22.8	8.1	6.8	93	25.	--
JUN 10, 76	1115	1	.3	38000	26.2	--	7.9	116	15.	108
			1.6	38000	26.1	--	7.9	116	15.	--
AUG 16, 76	1350	1	.3	42000	29.7	8.2	6.1	97	5.	146
			2.6	31000	29.8	8.1	4.2	64	0.	--
OCT 21, 75	0950	5	.3	39000	23.4	8.5	6.0	80	0.	149
			1.5	39000	23.3	8.5	6.0	80	0.	--
			3.0	38000	23.5	8.5	6.0	81	5.	--
FEB 02, 76	1330	5	.3	41000	14.4	8.3	8.4	97	0.	136
			1.5	41000	13.9	8.3	8.7	99	0.	--
			3.0	41000	13.9	8.3	8.4	95	0.	--
APR 12, 76	1425	5	.3	44000	23.3	8.2	7.4	101	10.	83
			1.5	44000	23.3	8.2	7.2	99	5.	--
			3.4	44000	23.4	8.1	7.0	97	5.	--
JUN 10, 76	1140	5	.3	35000	27.0	--	8.0	116	20.	62

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 363 CONTINUED					
JUN 10, 76	1140	5	1.5	35000	26.8	--	8.1	118	20.	--
			3.7	35000	26.1	--	8.1	116	25.	--
AUG 16, 76	1425	5	.3	28000	29.9	8.3	6.9	101	105.	82
			1.5	23000	29.9	8.3	6.9	100	130.	--
			3.0	25000	29.9	8.3	6.9	100	45.	--
					LINE 375					
OCT 21, 75	1045	2	.3	43000	23.9	8.4	6.4	89	10.	146
			1.5	43000	23.9	8.4	6.6	92	15.	--
			3.4	44000	24.0	8.4	6.5	92	20.	--
OCT 23, 75	1035	2	.3	43000	23.2	8.3	6.7	92	20.	--
			1.5	43000	23.0	8.2	6.3	86	115.	--
			3.4	43000	23.0	8.3	5.9	81	45.	--
FEB 03, 76	0855	2	.3	44000	13.7	8.2	7.9	91	30.	155
			1.5	48000	14.0	8.2	7.5	88	40.	--
			3.4	47000	14.4	8.2	7.2	86	30.	--
APR 13, 76	0920	2	.3	42000	22.7	8.4	6.3	85	70.	51
			1.5	42000	22.7	8.4	6.2	84	80.	--
			3.4	42000	22.6	8.4	6.4	86	75.	--
JUN 10, 76	1050	2	.3	43000	26.8	--	7.3	110	20.	94
			1.5	43000	26.5	--	7.1	108	20.	--
			3.7	43000	26.5	--	7.1	108	25.	--
AUG 17, 76	1020	2	.3	42000	29.5	8.3	6.1	96	0.	183
			1.8	44000	29.6	8.3	5.6	89	10.	--
			3.7	41000	29.6	8.3	5.4	84	15.	--
OCT 21, 75	1145	3	.3	43000	24.1	8.5	6.6	92	5.	132
			1.5	43000	24.3	8.5	6.5	90	5.	--
			3.4	43000	24.9	8.5	5.9	83	40.	--
FEB 02, 76	1355	3	.3	42000	14.4	8.2	8.4	98	5.	100
			1.5	42000	14.4	8.2	8.5	99	0.	--
			3.0	41000	14.5	8.2	8.2	94	50.	--
APR 12, 76	1445	3	.3	42000	23.5	8.2	7.0	97	15.	71
			1.5	42000	23.5	8.2	6.9	96	15.	--
			2.7	42000	23.5	8.2	6.8	94	15.	--
JUN 10, 76	1215	3	.3	37000	27.1	--	8.3	122	30.	98
			1.5	38000	26.9	--	7.9	118	40.	--
			3.7	37000	27.3	--	8.1	121	20.	--
AUG 17, 76	1000	3	.3	41000	29.6	8.4	6.0	93	10.	124
			2.0	41000	29.5	8.4	5.8	91	0.	--
			4.0	40000	29.4	8.3	4.4	68	50.	--
					LINE 382					
OCT 21, 75	1120	2	.3	44000	24.2	8.5	6.3	89	10.	105
			2.4	44000	25.0	8.5	6.3	90	15.	--
FEB 03, 76	1300	2	.3	48000	15.9	8.2	8.8	107	5.	122
			1.5	48000	15.6	8.2	8.8	107	15.	--
			3.4	48000	15.6	8.2	7.9	96	15.	--
APR 13, 76	0955	2	.3	44000	22.1	8.6	7.5	101	0.	325
			1.5	44000	22.1	8.6	7.5	101	0.	--
			3.0	44000	22.1	8.6	7.4	100	0.	--
			5.2	44000	22.2	8.6	7.4	100	0.	--
JUN 10, 76	0915	2	.3	44000	26.2	--	6.3	94	10.	103

TABLE 6A--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 382 CONTINUED					
JUN 10, 76	0915	2	3.0	44000	26.3	--	6.2	94	10.	--
			5.5	44000	26.2	--	6.3	94	10.	--
AUG 17, 76	1320	2	.3	50000	30.3	8.3	6.5	108	20.	117
			3.0	50000	30.2	8.2	6.3	105	10.	--
			6.4	50000	30.3	8.2	6.2	103	25.	--
					LINE 397					
FEB 03, 76	0955	2	.3	48000	15.5	8.2	7.2	88	5.	86
			3.0	48000	15.2	8.2	7.2	87	20.	--
			6.1	48000	15.2	8.2	7.2	87	20.	--
			10.7	48000	15.2	8.2	7.1	85	25.	--
JUN 10, 76	1030	2	.3	46000	26.1	--	7.2	109	20.	67
			3.0	46000	26.1	--	7.3	110	20.	--
			9.1	46000	26.0	--	8.1	122	20.	--
			12.2	45000	26.0	--	7.8	119	15.	--
AUG 17, 76	1055	2	.3	50000	29.5	8.3	5.5	91	25.	163
			5.3	50000	29.5	8.3	5.5	91	15.	--
			10.7	48000	29.4	8.3	5.6	91	20.	--
					LINE 400					
FEB 03, 76	1245	2	.3	48000	15.7	8.2	8.4	102	5.	50
			3.0	48000	15.6	8.2	8.4	102	--	--
			4.6	48000	15.6	8.2	8.3	101	20.	--
			6.1	48000	15.6	8.2	8.4	102	25.	--
APR 13, 76	1010	2	.3	44000	22.3	8.6	7.4	100	0.	134
			1.5	44000	22.2	8.6	7.5	101	0.	--
			3.0	44000	22.1	8.6	7.6	103	0.	--
			6.1	44000	22.1	8.6	7.6	103	0.	--
			8.2	44000	22.1	8.6	7.6	103	0.	--
JUN 10, 76	0930	2	.3	44000	26.1	--	6.6	99	20.	93
			3.0	44000	26.2	--	6.4	95	10.	--
			6.1	44000	26.2	--	6.4	95	10.	--
			8.2	44000	26.2	--	6.8	101	20.	--
AUG 17, 76	1300	2	.3	45000	30.0	8.4	6.3	101	20.	114
			3.7	45000	29.8	8.3	6.3	101	30.	--
			7.3	48000	29.8	8.3	6.5	107	50.	--
					LINE 903					
FEB 03, 76	0930	49	.3	48000	14.9	8.2	7.4	89	20.	--
			3.0	48000	15.5	8.2	7.1	87	20.	--
			6.1	51000	16.1	8.2	6.8	84	--	--
			10.7	52000	16.2	8.2	6.5	81	30.	--
JUN 10, 76	1010	49	.3	46000	26.0	--	7.1	108	10.	100
			3.0	48000	26.0	--	6.5	100	10.	--
			6.1	48000	26.0	--	6.1	94	20.	--
			9.1	48000	25.9	--	5.9	91	20.	--
			12.2	48000	25.8	--	5.7	88	50.	--
AUG 17, 76	1120	49	.3	50000	29.8	8.3	6.1	101	20.	132
			3.0	50000	29.5	8.3	5.9	96	20.	--
			6.1	50000	29.4	8.3	5.7	93	20.	--
			11.3	50000	29.5	8.3	5.5	91	50.	--

TABLE 6B--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 17						
OCT 23, 75	1225	2	.3	23.0	.00	.01	.00	--	.08	1.0	--	6.8
			3.4	--	.00	.44	.00	--	.24	1.5	--	--
FEB 03, 76	1130	2	.3	6.4	.01	.01	.00	--	.06	1.4	--	--
			3.0	--	.00	.04	.00	--	.12	1.6	--	--
APR 13, 76	1140	2	.3	13.0	.31	.03	.02	--	.10	1.7	--	--
			3.4	--	.33	.02	.02	--	.09	1.4	--	--
JUN 10, 76	1255	2	.3	19.0	.01	.01	.00	--	.11	3.2	--	--
			3.7	--	.02	.03	.01	--	.11	2.0	--	--
AUG 17, 76	1330	2	.3	24.0	.00	.01	.00	--	.06	2.0	--	5.9
			3.4	--	.00	.05	.00	--	.05	.8	--	--
						LINE 22						
OCT 23, 75	1240	2	.3	32.0	.01	.02	.00	--	.14	2.4	--	8.0
			3.0	--	.01	.06	.00	--	.19	2.9	--	--
FEB 03, 76	1100	2	.3	--	.00	.03	.01	--	.28	--	--	--
			3.0	--	.01	.05	.00	--	.15	2.2	--	--
APR 13, 76	1105	2	.3	15.0	.53	.09	.04	--	.10	1.9	--	--
			2.7	--	.52	.11	.05	--	.14	2.1	--	--
JUN 10, 76	1235	2	.3	19.0	.26	.03	.04	--	.11	2.2	--	--
			3.0	--	.34	.06	.03	--	.29	3.2	--	--
AUG 17, 76	1315	2	.3	32.0	.01	.01	.01	--	.21	2.9	--	5.8
			2.4	--	.03	.09	.03	--	.26	1.5	--	--
						LINE 65						
OCT 23, 75	1200	2	.3	--	.00	.04	.00	--	.10	2.2	--	--
			4.3	--	.00	.13	.00	--	.51	--	--	--
FEB 03, 76	1200	2	.3	--	.00	.07	.01	--	.06	--	--	--
			3.0	--	.00	.04	.00	--	.12	--	--	--
APR 13, 76	1030	2	.3	--	.24	.11	.02	--	.08	1.9	--	--
			3.7	--	.03	.61	.01	--	.23	--	--	--
JUN 10, 76	1210	2	.3	--	.11	.04	.03	--	.14	--	--	--
			4.3	--	.14	.06	.01	--	.14	--	--	--
AUG 17, 76	1245	2	.3	--	.00	.01	.00	--	.11	1.7	--	6.6
			3.7	--	.00	.03	.01	--	.17	--	--	--
						LINE 85						
OCT 23, 75	1105	2	.3	--	--	--	--	--	--	2.1	--	--
FEB 03, 76	1030	2	.3	--	.00	.03	.01	--	.09	2.9	--	3.4
APR 13, 76	1005	2	.3	--	.00	.04	.01	--	.05	2.4	--	--
JUN 10, 76	1145	2	.3	--	.00	.06	.01	--	.09	3.2	--	--
AUG 17, 76	1055	2	.3	--	.01	.04	.00	--	.13	.8	--	6.3
						LINE 129						
OCT 21, 75	1425	2	.3	10.0	.00	.04	.00	--	.17	2.0	--	--

TABLE 68--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 129 CONTINUED						
FEB 02, 76	1530	2	.3	.2	.00	.03	.01	--	.06	2.8	--	5.2
APR 12, 76	1535	2	.3	1.4	.00	.07	.01	--	.04	1.3	--	--
JUN 10, 76	0845	2	.3	8.2	.00	.03	.01	--	.08	2.1	--	--
AUG 17, 76	0855	2	.3	10.0	.01	.04	.00	--	.09	.5	--	--
						LINE 143						
OCT 23, 75	1020	3	.3	5.9	.00	.02	.00	--	.05	1.6	--	5.8
			1.8	6.0	.00	.01	.00	--	.06	2.6	--	--
FEB 02, 76	1510	3	.3	.2	.01	.04	.00	--	.06	2.0	--	--
			1.2	.2	.00	.03	.01	--	.09	2.6	--	--
APR 13, 76	0920	3	.3	.8	.00	.06	.01	--	.05	1.4	--	--
			1.8	.8	.00	.14	.01	--	.05	1.0	--	--
JUN 10, 76	1025	3	.3	6.5	.01	.04	.00	--	.05	2.8	--	--
			2.1	5.5	.01	.05	.00	--	.05	1.8	--	--
AUG 17, 76	1025	3	.3	7.5	.01	.03	.00	--	.05	.8	--	6.7
			1.8	7.1	.01	.04	.00	--	.06	1.0	--	7.6
						LINE 169						
OCT 23, 75	0945	2	.3	--	.00	.02	.00	--	.04	--	--	--
FEB 03, 76	0930	2	.3	--	.01	.04	.00	--	.06	--	--	--
APR 13, 76	0900	2	.3	--	.00	.07	.01	--	.05	--	--	--
JUN 10, 76	1000	2	.3	--	.00	.05	.00	--	.02	--	--	--
AUG 17, 76	1000	2	.3	--	.01	.03	.00	--	.06	--	--	--
						LINE 190						
OCT 21, 75	1335	2	.3	5.5	.00	.00	.00	--	.06	1.3	--	4.4
			.9	5.3	.00	.01	.00	--	.05	1.0	--	20.0
FEB 03, 76	0900	2	.3	.2	.01	.06	.00	--	.06	1.6	--	--
			1.5	.1	.00	.04	.01	--	.06	.9	--	--
APR 13, 76	0830	2	.3	.5	.00	.09	.01	--	.07	.8	--	--
			1.5	.5	.00	.05	.00	--	.04	1.0	--	--
JUN 10, 76	0940	2	.3	3.3	.00	.09	.00	--	.03	1.3	--	--
			2.1	3.4	.00	.06	.00	--	.04	1.5	--	9.7
AUG 17, 76	0930	2	.3	6.2	.01	.04	.00	--	.05	.9	--	5.8
			1.2	6.0	.01	.04	.00	--	.05	.7	--	6.3
OCT 21, 75	1305	4	.3	5.5	.00	.01	.00	--	.06	1.5	--	4.8
			11.0	1.8	.00	.12	.00	--	.10	1.4	--	5.8
FEB 02, 76	1420	4	.3	.2	.01	.05	.00	--	.05	1.6	--	--
			10.1	.5	.00	.11	.01	--	.06	1.2	--	--
APR 12, 76	1505	4	.3	--	.00	.08	.00	--	.03	1.0	--	--
			10.7	--	.00	.08	.01	--	.03	.8	--	--
JUN 10, 76	0915	4	.3	4.2	.00	.06	.00	--	.04	1.5	--	6.4
			11.0	1.9	.00	.18	.01	--	.06	2.2	--	--
AUG 16, 76	1510	4	.3	6.0	.01	.04	.00	--	.05	1.0	--	5.1

TABLE 6B--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 190 CONTINUED						
AUG 16, 76	1510	4	10.7	1.8	.00	.14	.01	--	.05	.7	--	2.6
						LINE 200						
OCT 21, 75	1220	5	.3	--	.00	.01	.00	--	.06	2.1	--	3.8
FEB 03, 76	0830	5	.3	--	.00	.07	.01	--	.04	1.6	--	--
APR 13, 76	0850	5	.3	--	.00	.06	.01	--	.04	1.1	--	--
JUN 10, 76	1240	5	.3	--	.00	.08	.00	--	.03	1.4	--	11.0
AUG 17, 76	0940	5	.3	--	.00	.07	.01	--	.06	.9	--	3.0
						LINE 229						
OCT 21, 75	1710	2	.3	13.0	.00	.01	.00	--	.09	2.5	--	6.6
FEB 02, 76	1530	2	.3	.5	.00	.01	.01	--	.08	2.7	--	--
APR 12, 76	1715	2	.3	3.0	.00	.05	.01	--	.05	1.6	--	--
JUN 09, 76	1520	2	.3	5.9	.00	.06	.00	--	.03	2.3	--	8.2
AUG 16, 76	1635	2	.3	13.0	.00	.06	.01	--	.06	1.2	--	6.4
						LINE 264						
OCT 21, 75	1550	2	.3	--	.00	.01	.00	--	.09	2.7	--	8.4
FEB 02, 76	1630	2	.3	--	.00	.02	.01	--	.06	1.5	--	--
APR 12, 76	1620	2	.3	--	.00	.06	.01	--	.05	1.5	--	--
JUN 09, 76	1400	2	.3	--	.00	.06	.00	--	.04	1.3	--	9.2
AUG 16, 76	1735	2	.3	13.0	--	--	--	--	--	1.0	--	8.0
						LINE 299						
FEB 02, 76	1200	2	.3	.4	.00	.02	.01	--	.04	1.1	--	--
AUG 16, 76	1205	2	.3	6.8	.00	.02	.01	--	.07	1.0	--	9.2
						LINE 300						
OCT 21, 75	0930	3	.3	--	.00	.01	.00	--	.06	1.2	--	--
			1.8	--	.00	.02	.00	--	.07	--	--	--
FEB 02, 76	1210	3	.3	--	.00	.04	.01	--	.04	1.3	--	--
			1.2	--	.00	.01	.01	--	.03	--	--	--
APR 12, 76	1300	3	.3	--	.00	.07	.01	--	.03	.7	--	--
			1.5	--	.00	.07	.00	--	.02	--	--	--
JUN 09, 76	1435	3	.3	--	.00	.02	.00	--	.01	1.1	--	--
			1.8	--	.00	.06	.01	--	.03	--	--	--
AUG 16, 76	1235	3	.3	--	.01	.04	.00	--	.05	.9	--	8.0
						LINE 320						
OCT 21, 75	1110	2	.3	4.1	.01	.05	.00	--	.07	1.3	--	--

TABLE 68--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 320 CONTINUED						
FEB 02, 76	1415	2	.3	.9	.01	.03	.01	--	.08	2.1	--	--
APR 12, 76	1530	2	.3	3.4	.24	.01	.02	--	.06	1.2	--	--
JUN 10, 76	1155	2	.3	3.7	.00	.05	.00	--	.05	1.4	--	5.4
						LINE 333						
OCT 21, 75	1255	1	.3	2.8	--	--	--	--	--	2.4	--	8.8
			1.4	--	.00	.01	.00	--	.09	--	--	--
FEB 02, 76	1300	1	.3	.7	.00	.10	.01	--	.05	1.2	--	5.2
			.9	--	.00	.03	.00	--	.05	--	--	--
APR 12, 76	1445	1	.3	.6	.00	.05	.00	--	.04	1.3	--	--
			1.2	--	--	--	--	--	--	1.3	--	--
JUN 10, 76	1025	1	.3	2.8	.00	.05	.01	--	.04	1.9	--	8.7
			1.8	--	.00	.05	.00	--	.04	--	--	--
AUG 16, 76	1440	1	.3	6.3	.00	.05	.00	--	.08	2.0	--	4.5
			1.2	--	.00	.21	.01	--	.08	--	--	--
						LINE 350						
OCT 21, 75	1135	2	.3	--	.00	.02	.01	--	.07	1.2	--	--
			4.9	--	.00	.01	.00	--	.09	1.1	--	--
FEB 02, 76	1235	2	.3	--	.00	.02	.01	--	.04	.9	--	--
			4.0	--	.00	.04	.01	--	.04	1.2	--	--
APR 12, 76	1330	2	.3	--	.00	.08	.00	--	.02	.7	--	--
			4.3	--	.00	.08	.00	--	.03	.7	--	--
JUN 10, 76	1125	2	.3	--	.00	.04	.00	--	.02	1.0	--	--
			4.0	--	.00	.11	.01	--	.03	.8	--	--
AUG 16, 76	1315	2	.3	--	.00	.08	.01	--	.05	.9	--	3.2
			4.6	--	.00	.07	.01	--	.05	1.0	--	5.2
						LINE 375						
OCT 21, 75	1045	2	.3	2.8	.00	.01	.00	--	.05	.6	--	7.6
			3.4	--	.00	.01	.00	--	.06	1.0	--	7.1
FEB 03, 76	0855	2	.3	.5	.00	.03	.01	--	.03	1.1	--	--
			3.4	--	.00	.06	.01	--	.04	1.0	--	--
APR 13, 76	0920	2	.3	.2	.00	.08	.00	--	.02	.7	--	--
			3.4	--	.00	.12	.01	--	.03	.6	--	--
JUN 10, 76	1050	2	.3	1.6	.00	.06	.00	--	.03	.9	--	7.4
			3.7	--	.00	.10	.01	--	.02	.9	--	3.4
AUG 17, 76	1020	2	.3	3.8	.01	.13	.00	--	.03	.6	--	2.0
			3.7	--	.00	.09	.01	--	.04	.4	--	3.4
						LINE 397						
FEB 03, 76	0955	2	.3	.5	.00	.09	.01	--	.05	.6	--	--
			10.7	--	.00	.08	.07	--	.05	1.2	--	--
JUN 10, 76	1030	2	.3	.3	.00	.07	.01	--	.01	1.1	--	--
			12.2	--	.00	.08	.01	--	.02	1.2	--	--
AUG 17, 76	1055	2	.3	1.0	.01	.13	.00	--	.03	.5	--	6.2

TABLE 68--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 397 CONTINUED						
AUG 17, 76	1055	2	10.7	--	.00	.10	.01	--	.04	.4	--	--
						LINE 400						
FEB 03, 76	1245	2	.3	.5	.00	.11	.01	--	.06	1.2	--	--
			6.1	.5	.00	.08	.01	--	.06	1.0	--	--
APR 13, 76	1010	2	.3	.1	.00	.05	.01	--	.01	.9	--	--
			8.2	.1	.00	.08	.01	--	.01	.9	--	--
JUN 10, 76	0930	2	.3	.5	.00	.05	.00	--	.03	.8	--	3.2
			8.2	.3	.00	.21	.01	--	.04	1.2	--	5.0
AUG 17, 76	1300	2	.3	3.7	.01	.09	.00	--	.05	1.1	--	1.3
			7.3	1.3	.00	.13	.01	--	.05	1.2	--	1.5
						LINE 903						
FEB 03, 76	0930	49	.3	.5	.00	.08	.01	--	.04	1.4	--	--
			10.7	--	.00	.07	.01	--	.06	.9	--	--
JUN 10, 76	1010	49	.3	.1	.00	.11	.00	--	.01	1.3	--	--
			12.2	--	.01	.15	.01	--	.04	1.1	--	--
AUG 17, 76	1120	49	.3	.8	.01	.09	.00	--	.03	.4	--	6.3
			11.3	--	.01	.13	.00	--	.03	.5	--	7.2

TABLE 6C--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 17					
OCT 23, 75	1225	2	.3	1670	95.0	25.0	--	332	61	370	967
			3.4	8620	--	--	--	--	--	--	--
FEB 03, 76	1130	2	.3	977	84.0	16.0	--	310	39	230	676
			3.0	3200	--	--	--	--	--	--	--
APR 13, 76	1140	2	.3	404	38.0	4.6	--	122	17	63	242
			3.4	394	--	--	--	--	--	--	--
JUN 10, 76	1255	2	.3	404	55.0	3.9	--	190	12	38	253
			3.7	461	--	--	--	--	--	--	--
AUG 17, 76	1330	2	.3	746	86.0	7.5	--	305	16	73	415
			3.4	749	--	--	--	--	--	--	--
						LINE 22					
OCT 23, 75	1240	2	.3	760	61.0	11.0	--	232	16	99	414
			3.0	876	--	--	--	--	--	--	--
FEB 03, 76	1100	2	3.0	818	--	--	--	--	--	--	--
APR 13, 76	1105	2	.3	425	40.0	4.4	--	128	15	56	235
			2.7	434	--	--	--	--	--	--	--
JUN 10, 76	1235	2	.3	357	43.0	4.7	--	155	12	35	219
			3.0	362	--	--	--	--	--	--	--
AUG 17, 76	1315	2	.3	897	77.0	12.0	--	283	21	140	519
			2.4	893	--	--	--	--	--	--	--
						LINE 65					
OCT 23, 75	1200	2	.3	11000	--	--	--	--	--	--	--
APR 13, 76	1030	2	.3	6990	--	--	--	--	--	--	--
AUG 17, 76	1245	2	.3	2400	--	--	--	--	--	--	--
						LINE 85					
OCT 23, 75	1105	2	.3	24600	--	--	--	--	--	--	--
FEB 03, 76	1030	2	.3	27200	--	--	--	--	--	--	--
APR 13, 76	1005	2	.3	29800	--	--	--	--	--	--	--
JUN 10, 76	1145	2	.3	6340	--	--	--	--	--	--	--
AUG 17, 76	1055	2	.3	10900	--	--	--	--	--	--	--
						LINE 129					
OCT 21, 75	1425	2	.3	26400	220.0	590.0	--	159	1200	8500	15600
FEB 02, 76	1530	2	.3	35400	290.0	880.0	--	136	1600	13000	23400
APR 12, 76	1535	2	.3	40000	330.0	960.0	--	141	2100	14000	25800
JUN 10, 76	0845	2	.3	14600	120.0	300.0	--	118	620	4900	8830
AUG 17, 76	0855	2	.3	23500	190.0	530.0	--	141	1000	7800	14200

TABLE 6C--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 143						
OCT 23, 75	1020	3	.3	31500	250.0	770.0	--	161	1600	11000	20600
			1.8	33500	230.0	760.0	--	160	1500	11000	20000
FEB 02, 76	1510	3	.3	35400	300.0	880.0	--	136	1600	13000	23100
			1.2	35800	290.0	870.0	--	137	1600	13000	23100
APR 13, 76	0920	3	.3	42700	340.0	1000.0	--	149	2200	16000	28300
			1.8	42800	350.0	1000.0	--	149	2200	15000	27400
JUN 10, 76	1025	3	.3	22100	170.0	470.0	--	126	1000	7200	13100
			2.1	26200	210.0	570.0	--	136	1300	9300	16700
AUG 17, 76	1025	3	.3	28300	230.0	680.0	--	144	1300	10000	17900
			1.8	29100	240.0	710.0	--	144	1400	10000	18400
					LINE 190						
OCT 21, 75	1335	2	.3	35800	270.0	790.0	--	163	1600	11000	20600
			.9	35700	220.0	820.0	--	163	1600	11000	20000
FEB 03, 76	0900	2	.3	38600	300.0	930.0	--	140	1900	14000	25200
			1.5	38900	310.0	940.0	--	142	2000	14000	25400
APR 13, 76	0830	2	.3	42600	350.0	990.0	--	148	2200	15000	27300
			1.5	42500	350.0	990.0	--	150	2200	15000	27300
JUN 10, 76	0940	2	.3	30600	250.0	720.0	--	144	1500	11000	19800
			2.1	31700	260.0	750.0	--	144	1500	11000	19800
AUG 17, 76	0930	2	.3	31300	250.0	760.0	--	144	1500	11000	19900
			1.2	31200	260.0	750.0	--	144	1500	11000	19900
OCT 21, 75	1305	4	.3	35800	230.0	800.0	--	159	1600	12000	21900
			11.0	45500	380.0	1300.0	--	154	2300	15000	27600
FEB 02, 76	1420	4	.3	37800	290.0	920.0	--	140	1700	14000	24600
			10.1	48600	370.0	1200.0	--	146	2400	18000	32200
APR 12, 76	1505	4	.3	42300	--	--	--	--	--	--	--
			10.7	42400	--	--	--	--	--	--	--
JUN 10, 76	0915	4	.3	30600	260.0	730.0	--	140	1400	11000	19500
			11.0	41600	330.0	1000.0	--	146	2000	15000	26600
AUG 16, 76	1510	4	.3	33300	260.0	780.0	--	144	1600	11000	20300
			10.7	50600	390.0	1400.0	--	151	2400	20000	35700
					LINE 200						
OCT 21, 75	1220	5	.3	28500	--	--	--	--	--	--	--
FEB 03, 76	0830	5	.3	40900	--	--	--	--	--	--	--
APR 13, 76	0850	5	.3	42300	--	--	--	--	--	--	--
JUN 10, 76	1240	5	.3	35800	--	--	--	--	--	--	--
AUG 17, 76	0940	5	.3	33900	--	--	--	--	--	--	--
					LINE 229						
OCT 21, 75	1710	2	.3	21000	140.0	450.0	--	190	860	6400	11500
FEB 02, 76	1530	2	.3	27300	220.0	620.0	--	138	1200	9400	16900

TABLE 6C--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 229 CONTINUED					
APR 12, 76	1715	2	.3	36800	320.0	880.0	--	148	1900	13000	23600
JUN 09, 76	1520	2	.3	25200	210.0	570.0	--	146	1100	8800	15400
AUG 16, 76	1635	2	.3	11100	85.0	220.0	--	151	460	3500	6460
						LINE 264					
OCT 21, 75	1550	2	.3	29100	--	--	--	--	--	--	--
FEB 02, 76	1630	2	.3	33200	--	--	--	--	--	--	--
APR 12, 76	1620	2	.3	39100	--	--	--	--	--	--	--
JUN 09, 76	1400	2	.3	28000	--	--	--	--	--	--	--
AUG 16, 76	1735	2	.3	15000	120.0	340.0	--	152	650	5200	9320
						LINE 299					
FEB 02, 76	1200	2	.3	38400	300.0	930.0	--	150	1700	14000	24800
AUG 16, 76	1205	2	.3	24100	200.0	570.0	--	145	1100	8500	15200
						LINE 300					
OCT 21, 75	0930	3	.3	38700	--	--	--	--	--	--	--
FEB 02, 76	1210	3	.3	38700	--	--	--	--	--	--	--
APR 12, 76	1300	3	.3	42300	--	--	--	--	--	--	--
JUN 09, 76	1435	3	.3	32900	--	--	--	--	--	--	--
AUG 16, 76	1235	3	.3	25200	--	--	--	--	--	--	--
						LINE 320					
OCT 21, 75	1110	2	.3	36400	290.0	820.0	--	180	1700	12000	21800
FEB 02, 76	1415	2	.3	34100	280.0	830.0	--	192	1500	12000	21400
APR 12, 76	1530	2	.3	23400	210.0	540.0	--	154	1100	7900	14600
JUN 10, 76	1155	2	.3	26400	210.0	600.0	--	145	1300	9300	16700
						LINE 333					
OCT 21, 75	1255	1	.3	38300	360.0	840.0	--	184	1800	13000	23500
FEB 02, 76	1300	1	.3	39900	310.0	960.0	--	179	2000	14000	25400
APR 12, 76	1445	1	.3	40100	330.0	970.0	--	161	2100	14000	25500
			1.2	39900	--	--	--	--	--	--	--
JUN 10, 76	1025	1	.3	30200	240.0	700.0	--	147	1400	11000	19300
AUG 16, 76	1440	1	.3	27300	230.0	660.0	--	174	1300	9600	17500
						LINE 350					
OCT 21, 75	1135	2	.3	41500	--	--	--	--	--	--	--
			4.9	41600	--	--	--	--	--	--	--

TABLE 6C--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 350 CONTINUED						
FEB 02, 76	1235	2	.3	38600	--	--	--	--	--	--	--
			4.0	38700	--	--	--	--	--	--	--
APR 12, 76	1330	2	.3	43600	--	--	--	--	--	--	--
			4.3	43600	--	--	--	--	--	--	--
JUN 10, 76	1125	2	.3	36300	--	--	--	--	--	--	--
			4.0	37400	--	--	--	--	--	--	--
AUG 16, 76	1315	2	.3	36700	--	--	--	--	--	--	--
			4.6	37900	--	--	--	--	--	--	--
					LINE 375						
OCT 21, 75	1045	2	.3	42700	350.0	930.0	--	160	1700	15000	26600
			3.4	44300	--	--	--	--	--	--	--
FEB 03, 76	0855	2	.3	43200	340.0	1100.0	--	152	2200	16000	29100
			3.4	49400	--	--	--	--	--	--	--
APR 13, 76	0920	2	.3	42700	350.0	1000.0	--	142	2200	15000	27400
			3.4	42900	--	--	--	--	--	--	--
JUN 10, 76	1050	2	.3	39900	300.0	930.0	--	149	1900	14000	25100
			3.7	43800	--	--	--	--	--	--	--
AUG 17, 76	1020	2	.3	41500	330.0	1000.0	--	152	2000	15000	27100
			3.7	47300	--	--	--	--	--	--	--
					LINE 397						
FEB 03, 76	0955	2	.3	50400	390.0	1200.0	--	150	2600	18000	32700
			10.7	50600	--	--	--	--	--	--	--
JUN 10, 76	1030	2	.3	45500	350.0	1000.0	--	143	2400	17000	30200
			12.2	45900	--	--	--	--	--	--	--
AUG 17, 76	1055	2	.3	50400	410.0	1300.0	--	151	2700	20000	3590
			10.7	50700	--	--	--	--	--	--	--
					LINE 400						
FEB 03, 76	1245	2	.3	49600	370.0	1200.0	--	150	2500	18000	32600
			6.1	49800	390.0	1200.0	--	150	2600	18000	32700
APR 13, 76	1010	2	.3	43500	330.0	1000.0	--	138	2300	16000	28800
			8.2	43600	330.0	1000.0	--	139	2300	16000	28800
JUN 10, 76	0930	2	.3	44400	330.0	1100.0	--	144	2200	16000	28500
			8.2	44800	340.0	1000.0	--	143	2200	17000	30000
AUG 17, 76	1300	2	.3	44900	330.0	990.0	--	161	2000	15000	27100
			7.3	48700	400.0	1300.0	--	154	2600	19000	33800
					LINE 903						
FEB 03, 76	0930	49	.3	50800	400.0	1200.0	--	149	2600	18000	33700
			10.7	52500	--	--	--	--	--	--	--
JUN 10, 76	1010	49	.3	44800	370.0	1100.0	--	144	2200	17000	30100
			12.2	48400	--	--	--	--	--	--	--
AUG 17, 76	1120	49	.3	53000	420.0	1300.0	--	150	2600	21000	36800
			11.3	52700	--	--	--	--	--	--	--

TABLE 6D--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ALUMI-NUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)
						LINE 85				
OCT 23, 75	1105	2	.3	10	2	--	--	0	--	--
			1.5	--	--	--	4	--	--	< 10.00
						LINE 143				
OCT 23, 75	1020	3	.3	20	2	--	--	1	--	--
			1.8	--	--	--	7	--	--	< 10.00
						LINE 169				
OCT 23, 75	0945	2	.3	6	2	--	--	0	--	--
			1.2	--	--	--	4	--	--	< 10.00
						LINE 190				
OCT 23, 75	0945	4	.3	7	2	--	--	0	--	--
			11.6	--	--	--	8	--	--	< 10.00
						LINE 229				
OCT 21, 75	1710	2	1.2	--	--	--	4	--	--	< 10.00
						LINE 264				
OCT 21, 75	1550	2	1.2	--	--	--	6	--	--	< 10.00
						LINE 333				
OCT 21, 75	1255	1	1.4	--	--	--	7	--	--	< 10.00
						LINE 375				
OCT 23, 75	1035	2	.3	6	1	--	--	0	--	--
			3.4	--	--	--	7	--	--	< 10.00

TABLE 6D--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 85					
OCT 23, 75	1105	2	.3	1.00	--	0	--	--	2	--	--
			1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 143					
OCT 23, 75	1020	3	.3	.00	--	0	--	--	4	--	--
			1.8	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 169					
OCT 23, 75	0945	2	.3	.00	--	0	--	--	2	--	--
			1.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 190					
OCT 23, 75	0945	4	.3	.00	--	0	--	--	5	--	--
			11.6	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 229					
OCT 21, 75	1710	2	1.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 264					
OCT 21, 75	1550	2	1.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 333					
OCT 21, 75	1255	1	1.4	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 375					
OCT 23, 75	1035	2	.3	.00	--	0	--	--	29	--	--
			3.4	--	--	--	--	< 10.00	--	--	< 10.00

TABLE 6D--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (P_B) (UG/GM)
						LINE 85					
OCT 23, 75	1105	2	.3	--	--	50	--	--	0	--	--
			1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 143					
OCT 23, 75	1020	3	.3	--	--	70	--	--	12	--	--
			1.8	--	.0	--	--	--	--	--	< 10.00
						LINE 169					
OCT 23, 75	0945	2	.3	--	--	50	--	--	0	--	--
			1.2	--	.0	--	--	--	--	--	< 10.00
						LINE 190					
OCT 23, 75	0945	4	.3	--	--	60	--	--	5	--	--
			11.6	--	.0	--	--	--	--	--	< 10.00
						LINE 229					
OCT 21, 75	1710	2	1.2	--	.0	--	--	--	--	--	< 10.00
						LINE 264					
OCT 21, 75	1550	2	1.2	--	.0	--	--	--	--	--	< 10.00
						LINE 333					
OCT 21, 75	1255	1	1.4	--	.0	--	--	--	--	--	< 10.00
						LINE 375					
OCT 23, 75	1035	2	.3	--	--	80	--	--	3	--	--
			3.4	--	.0	--	--	--	--	--	< 10.00

TABLE 6D--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITHIUM (LI) (UG/L)	DIS-SOLVED MANGANESE (MN) (UG/L)	TOTAL MANGANESE (MN) (UG/L)	BOTTOM DEPOSIT MANGANESE (MN) (UG/GM)	DIS-SOLVED MERCURY (HG) (UG/L)	TOTAL MERCURY (HG) (UG/L)	BOTTOM DEPOSIT MERCURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRONTIUM (SR) (UG/L)
						LINE 85						
OCT 23, 75	1105	2	.3	80	10	--	--	.0	--	--	0	3300
			1.5	--	--	--	170	--	--	.5	--	--
						LINE 143						
OCT 23, 75	1020	3	.3	100	30	--	--	.0	--	--	0	3300
			1.8	--	--	--	300	--	--	1.5	--	--
						LINE 169						
OCT 23, 75	0945	2	.3	100	30	--	--	.0	--	--	0	3300
			1.2	--	--	--	220	--	--	.2	--	--
						LINE 190						
OCT 23, 75	0945	4	.3	100	30	--	--	.0	--	--	0	3500
			11.6	--	--	--	620	--	--	.4	--	--
						LINE 229						
OCT 21, 75	1710	2	1.2	--	--	--	200	--	--	.0	--	--
						LINE 264						
OCT 21, 75	1550	2	1.2	--	--	--	150	--	--	.0	--	--
						LINE 333						
OCT 21, 75	1255	1	1.4	--	--	--	20	--	--	.2	--	--
						LINE 375						
OCT 23, 75	1035	2	.3	120	30	--	--	.0	--	--	0	3800
			3.4	--	--	--	450	--	--	.3	--	--

TABLE 6D--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)
						LINE 85
OCT 23, 75	1105	2	.3	20	--	--
			1.5	--	--	10.00
						LINE 143
OCT 23, 75	1020	3	.3	5	--	20.00
						LINE 169
OCT 23, 75	0945	2	.3	20	--	--
			1.2	--	--	10.00
						LINE 190
OCT 23, 75	0945	4	.3	10	--	--
			11.6	--	--	20.00
						LINE 229
OCT 21, 75	1710	2	1.2	--	--	20.00
						LINE 264
OCT 21, 75	1550	2	1.2	--	--	20.00
						LINE 333
OCT 21, 75	1255	1	1.4	--	--	< 10.00
						LINE 375
OCT 23, 75	1035	2	.3	20	--	--
			3.4	--	--	20.00

TABLE 6E--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 169					
OCT 23, 75	0945	2	1.2	--	.0	--	.0	--	.0	--	.0
						LINE 190					
OCT 23, 75	0945	4	11.6	--	.0	--	.0	--	.0	--	.0
						LINE 375					
OCT 21, 75	1045	2	3.4	--	.0	--	.0	--	.0	--	.0

TABLE 6E--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 169					
OCT 23, 75	0945	2	1.2	--	.0	--	.0	--	.0	--	.0
						LINE 190					
OCT 23, 75	0945	4	11.6	--	.0	--	.0	--	.0	--	.0
						LINE 375					
OCT 21, 75	1045	2	3.4	--	.0	--	.0	--	.0	--	.0

TABLE 6E--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTACHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL MALATHION (UG/L)	TOTAL DIAZINON (UG/L)
						LINE 169					
OCT 23, 75	0945	2	1.2	--	.0	--	.0	--	--	--	--
						LINE 190					
OCT 23, 75	0945	4	11.6	--	.0	--	.0	--	--	--	--
						LINE 375					
OCT 21, 75	1045	2	3.4	--	.0	--	.0	--	--	--	--

TABLE 6E--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 85					
OCT 23, 75	1105	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 143					
OCT 23, 75	1020	3	.3	--	--	.00	--	.00	--	.00	--
						LINE 169					
OCT 23, 75	0945	2	1.2	--	.0	--	--	--	--	--	--
						LINE 190					
OCT 21, 75	1305	4	.3	--	--	.00	--	.00	--	.00	--
OCT 23, 75	0945	4	11.6	--	.0	--	--	--	--	--	--
						LINE 229					
OCT 21, 75	1710	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 264					
OCT 21, 75	1550	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 333					
OCT 21, 75	1255	1	.3	--	--	.00	--	.00	--	.00	--
						LINE 375					
OCT 21, 75	1045	2	.3	--	--	.00	--	.00	--	.00	--
			3.4	--	.0	--	--	--	--	--	--

TABLE 6E--QUALITY OF WATER IN THE LAVACA-TRES PALACIOS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION (UG/KG)
						LINE 85					
OCT 23, 75	1105	2	1.5	--	--	--	.0	--	.0	--	--
						LINE 143					
OCT 23, 75	1020	3	1.8	--	--	--	.0	--	.0	--	--
						LINE 169					
OCT 23, 75	0945	2	1.2	--	0.	--	--	--	--	--	--
						LINE 190					
OCT 23, 75	0945	4	11.6	--	0.	--	.0	--	.0	--	--
						LINE 229					
OCT 21, 75	1710	2	1.2	--	--	--	.0	--	.0	--	--
						LINE 264					
OCT 21, 75	1550	2	1.2	--	--	--	.0	--	.0	--	--
						LINE 333					
OCT 21, 75	1255	1	1.4	--	--	--	.0	--	.0	--	--
						LINE 375					
OCT 21, 75	1045	2	3.4	--	0.	--	.0	--	.0	--	--

Guadalupe Estuary

The Guadalupe estuary, which has an area of about 210 square miles (544 km^2), consists of the tidal parts of the Guadalupe River, Mission Lake, Guadalupe Bay, Hynes Bay, San Antonio Bay, Espiritu Santo Bay, Mesquite Bay, Victoria Channel, and part of the Intracoastal Waterway (Figure 8). At mean low water, the Guadalupe River is about 10 feet (3.0 m) deep; Mission Lake, Guadalupe Bay, and Hynes Bay are less than 3 feet (1.0 m) deep; San Antonio Bay is less than 6 feet (1.8 m) deep; Espiritu Santo Bay is about 8 feet (2.4 m) deep; Mesquite Bay is about 4 feet (1.2 m) deep; Victoria Channel is more than 8 feet (2.4 m) deep; and the Intracoastal Waterway is about 15 feet (4.6 m) deep.

I, June,

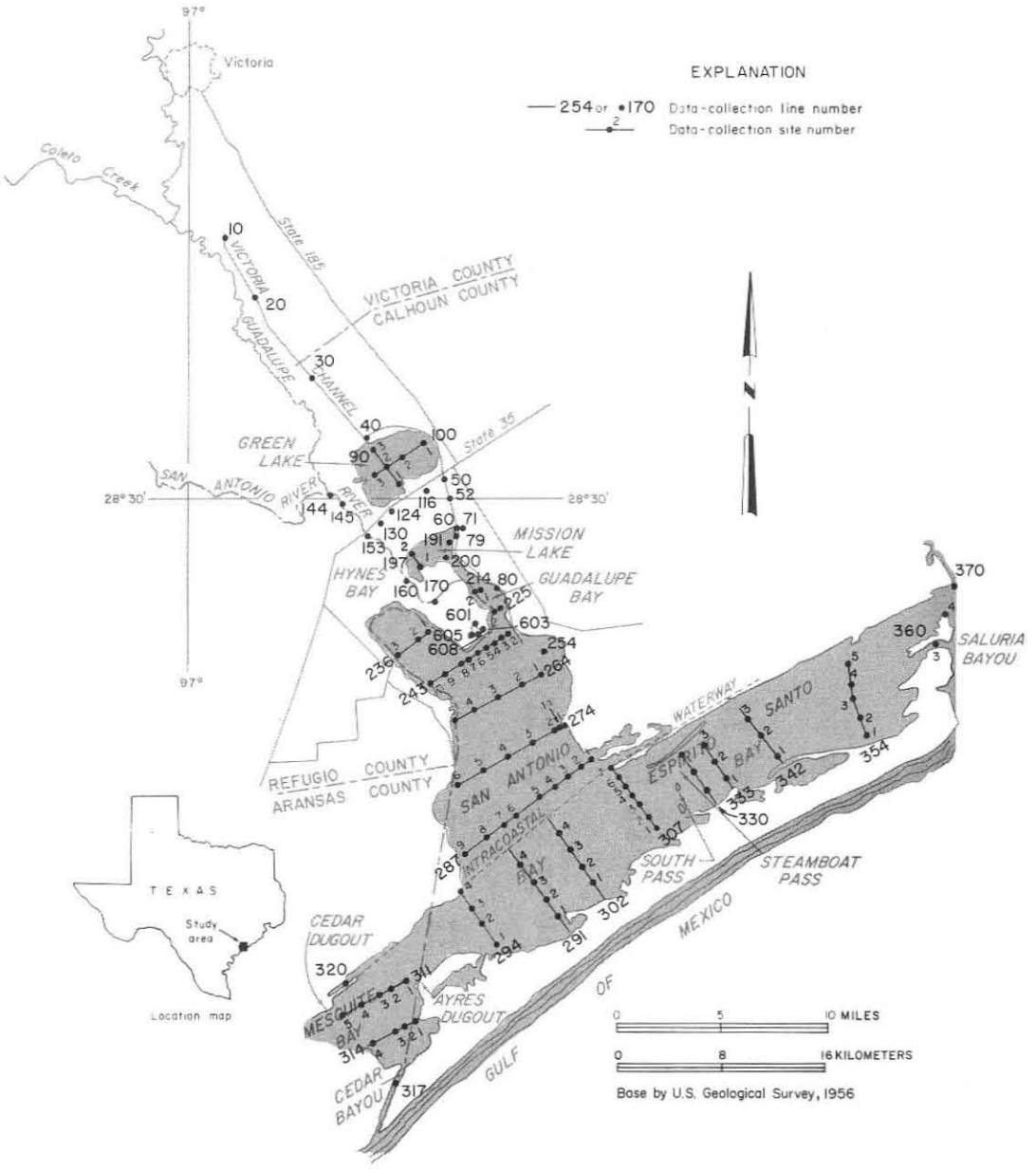

Figure 8.—Data-Collection Sites in the Guadalupe Estuary

TABLE 7A--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 80					
OCT 23, 75	1540	2	.3	4200	26.2	8.7	7.6	94	90.	33
			1.8	7500	26.2	8.7	6.1	76	90.	--
			4.0	6300	27.0	8.7	5.8	73	85.	--
FEB 04, 76	1145	2	.3	3700	16.8	8.5	9.1	94	--	33
			1.5	6200	16.5	8.4	8.6	88	--	--
			2.4	6700	16.3	8.4	8.3	86	--	--
			3.4	7200	16.2	8.3	8.2	84	--	--
APR 13, 76	1505	2	.3	1200	24.0	7.5	7.0	82	250.	9
			1.8	1400	24.0	7.4	6.8	80	250.	--
			3.7	6200	23.0	7.4	6.3	74	140.	--
JUN 09, 76	1355	2	.3	440	28.7	8.3	6.0	78	80.	--
			1.8	440	28.3	8.2	5.7	74	85.	--
			4.0	440	28.4	8.2	5.6	73	105.	--
					LINE 160					
OCT 23, 75	1625	2	.3	750	25.5	8.5	6.6	79	40.	36
			1.8	750	26.0	8.5	6.2	77	45.	--
			3.7	4000	27.5	8.8	5.8	74	45.	--
FEB 04, 76	1045	2	.3	800	15.2	8.0	9.1	89	40.	38
			1.5	800	15.2	8.0	9.2	90	40.	--
			4.3	800	15.2	7.8	8.8	86	50.	--
APR 13, 76	1600	2	.3	360	21.0	7.9	5.6	62	275.	8
			2.4	360	21.0	7.8	5.6	62	300.	--
			4.9	360	21.0	7.8	5.6	62	325.	--
JUN 09, 76	1305	2	.3	540	27.5	8.0	5.0	64	110.	--
			3.0	540	27.5	8.0	4.8	62	100.	--
			5.5	540	27.8	8.0	5.6	72	80.	--
					LINE 170					
AUG 18, 76	1050	2	.3	650	27.1	--	5.9	75	80.	30
			1.8	650	27.1	--	5.7	72	80.	--
					LINE 200					
OCT 23, 75	1710	2	.3	740	26.1	8.8	8.5	104	55.	23
			1.2	740	26.3	8.7	8.4	102	70.	--
FEB 04, 76	1010	2	.3	800	15.9	8.3	8.9	89	75.	26
			.9	820	16.2	8.3	8.3	83	95.	--
APR 13, 76	1530	2	.3	420	23.5	7.2	7.2	84	300.	8
			1.2	450	23.5	7.5	7.0	81	300.	--
JUN 09, 76	1235	2	.3	4100	27.2	8.0	5.7	73	60.	--
			1.2	4100	27.2	8.0	5.1	66	70.	--
AUG 18, 76	1030	2	.3	650	27.2	--	6.3	80	35.	51
			.9	650	27.2	--	6.3	80	30.	--
					LINE 243					
OCT 24, 75	1325	3	.3	22000	26.9	8.6	6.8	91	55.	23
			1.1	21000	27.2	8.6	6.9	97	140.	--
FEB 04, 76	0920	3	.3	3500	15.9	8.2	9.3	94	80.	21

TABLE 7A--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 243 CONTINUED						
FEB 04, 76	0920	3	.6	3600	16.0	8.3	9.1	92	90.	--
APR 13, 76	1440	3	.3	1400	24.0	7.1	7.7	91	300.	12
			.9	2000	24.0	7.8	7.9	94	300.	--
JUN 09, 76	1410	3	.3	470	28.4	8.0	6.7	87	60.	--
			1.2	470	28.3	7.7	6.3	82	50.	--
AUG 18, 76	1115	3	.3	700	27.5	--	7.6	97	35.	48
			.9	700	27.2	--	8.3	105	50.	--
FEB 04, 76	0945	9	.3	12000	15.9	8.3	8.7	91	45.	41
			.9	18000	15.6	8.3	8.2	86	30.	--
APR 13, 76	1450	9	.3	15000	24.7	8.3	7.9	99	160.	20
			1.2	15000	24.8	8.3	8.2	102	150.	--
JUN 09, 76	1210	9	.3	1800	27.7	8.8	7.8	100	55.	--
			1.2	1800	27.6	8.7	8.2	105	55.	--
AUG 18, 76	1005	9	.3	1900	27.2	--	6.4	82	40.	66
			1.2	1900	27.2	--	6.3	81	35.	--
				LINE 264						
OCT 23, 75	1535	5	.3	21000	26.0	8.4	8.0	105	--	33
			.9	21000	26.9	8.4	7.8	104	--	--
FEB 03, 76	1600	5	.3	19000	16.7	8.4	8.5	91	50.	38
APR 13, 76	1435	5	.3	22000	24.8	8.4	7.3	94	160.	17
			1.2	22000	24.8	8.4	7.7	99	150.	--
JUN 09, 76	1155	5	.3	1200	27.4	8.5	7.5	96	65.	--
			1.2	1200	27.5	8.5	7.6	97	85.	--
AUG 18, 76	0950	5	.3	3600	27.8	--	7.3	95	50.	56
			1.2	3600	27.8	--	7.3	95	50.	--
				LINE 274						
OCT 23, 75	1600	2	.3	21000	25.8	8.5	9.1	120	--	67
			1.5	21000	26.0	8.5	8.5	112	--	--
FEB 03, 76	1445	2	.3	16000	16.2	8.4	13.7	138	--	54
			1.2	16000	16.0	8.4	13.4	135	80.	--
APR 13, 76	1355	2	.3	30000	25.0	8.0	5.8	77	--	20
			.9	30000	25.1	8.0	5.9	79	140.	--
JUN 09, 76	1140	2	.3	610	27.2	8.5	7.8	99	55.	--
			1.2	610	27.1	8.5	8.0	101	60.	--
AUG 18, 76	0910	2	.3	8600	27.5	--	6.0	79	55.	36
			1.1	8600	27.5	--	6.0	79	70.	--
OCT 23, 75	1550	4	.3	19000	25.2	8.5	9.2	116	--	63
			1.8	21000	25.3	8.4	7.1	91	--	--
FEB 03, 76	1530	4	.3	14000	15.8	8.6	12.1	125	30.	58
			1.5	14000	15.7	8.6	11.9	121	30.	--
APR 13, 76	1405	4	.3	25000	24.5	8.3	7.5	96	80.	20
			1.8	27000	24.2	8.2	6.3	82	80.	--
JUN 09, 76	1125	4	.3	850	27.3	8.6	7.8	100	50.	--
			2.1	1300	26.8	8.7	7.1	91	85.	--

TABLE 7A--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCT-ANCE (MICRO-MHOS) (FIELD)	TEMPER-ATURE (DEG. C)	PH	DIS-SOLVED OXYGEN (MG/L)	PERCENT SATUR-ATION	TUR-BIDITY (JTU)	TRANS-PARENCY SECCHI DISK (CM)
					LINE 274 CONTINUED					
AUG 16, 76	0925	4	.3	5400	27.8	--	6.2	82	--	53
			1.7	5400	27.8	--	6.1	81	15.	--
OCT 23, 75	1520	5	.3	19000	25.1	8.4	8.4	106	--	82
			1.8	21000	26.9	8.4	7.8	104	--	--
FEB 03, 76	1540	5	.3	21000	16.4	8.4	7.9	86	--	53
			1.1	21000	16.4	8.4	7.7	84	70.	--
APR 13, 76	1420	5	.3	21000	24.5	8.3	7.3	94	--	20
			2.1	22000	24.5	8.3	6.8	87	200.	--
JUN 09, 76	1110	5	.3	18000	27.4	8.6	8.0	103	50.	--
			1.2	18000	27.3	8.6	7.4	95	45.	--
AUG 18, 76	0935	5	.3	7500	27.7	--	6.4	83	35.	56
			1.5	9500	28.0	--	4.4	59	60.	--
					LINE 287					
OCT 23, 75	1355	3	.3	21000	25.0	8.5	7.9	101	0.	88
			1.5	25000	25.8	8.4	7.4	99	50.	--
FEB 03, 76	1415	3	.3	23000	16.5	8.6	8.3	91	30.	81
			.9	23000	16.6	8.6	8.3	91	40.	--
APR 14, 76	0920	3	.3	26000	23.4	8.3	7.1	90	120.	17
			1.2	26000	23.6	8.3	7.2	91	150.	--
JUN 09, 76	1010	3	.3	6500	26.5	8.5	7.8	100	10.	--
			1.2	18000	27.0	8.3	5.1	68	20.	--
AUG 18, 76	0930	3	.3	6000	28.4	8.5	6.0	80	40.	28
			1.2	5000	28.6	8.5	6.3	84	70.	--
OCT 23, 75	1500	8	.3	21000	25.0	8.4	8.4	108	--	66
			1.5	21000	25.1	8.3	8.2	105	--	--
FEB 05, 76	0950	8	.3	26000	17.2	8.4	8.4	94	30.	89
			1.5	26000	17.2	8.4	8.3	93	20.	--
APR 14, 76	0955	8	.3	26000	23.9	8.3	7.4	95	140.	12
			1.5	26000	24.0	8.3	7.5	96	120.	--
JUN 09, 76	1035	8	.3	4400	27.1	8.6	7.9	104	25.	--
			1.8	5300	26.9	7.8	7.4	96	15.	--
AUG 18, 76	1005	8	.3	5500	28.8	8.5	8.1	108	0.	55
			1.8	5800	29.4	8.4	6.6	89	50.	--
OCT 23, 75	1450	9	.3	25000	25.2	8.3	7.1	92	--	31
			1.5	25000	25.7	8.4	7.3	96	--	--
FEB 05, 76	1000	9	.3	29000	17.5	8.4	8.5	98	20.	140
			1.2	29000	17.5	8.4	8.3	95	10.	--
APR 14, 76	1000	9	.3	31000	23.9	8.3	7.2	95	--	15
			1.5	31000	23.9	8.3	7.1	93	150.	--
JUN 09, 76	1045	9	.3	3200	27.2	8.8	7.3	94	65.	--
			1.8	3200	27.1	8.7	7.1	91	65.	--
AUG 18, 76	1010	9	.3	6000	28.8	8.6	8.2	109	10.	62
			1.8	6000	28.9	8.5	8.1	108	--	--
					LINE 294					
OCT 23, 75	1425	2	.3	26000	25.0	8.3	7.7	100	--	51

TABLE 7A--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 294 CONTINUED					
OCT 23, 75	1425	2	2.1	26000	26.8	8.4	7.5	101	--	--
FEB 05, 76	0930	2	.3	29000	17.1	8.5	8.7	99	20.	161
			1.8	29000	17.1	8.5	8.6	98	20.	--
APR 14, 76	1025	2	.3	26000	24.2	8.3	8.0	103	--	20
			1.8	26000	24.3	8.2	7.8	100	70.	--
JUN 09, 76	1050	2	.3	3800	26.8	--	9.3	119	130.	20
			1.8	3800	26.8	--	8.7	112	120.	20
AUG 18, 76	1040	2	.3	16000	29.3	8.4	8.4	118	5.	108
			1.8	7500	29.3	8.4	8.0	108	30.	--
OCT 23, 75	1435	4	.3	24000	25.5	8.3	7.6	99	--	44
			1.8	24000	25.0	8.4	7.6	97	--	--
			3.7	19000	25.6	8.3	7.5	96	--	--
FEB 05, 76	1010	4	.3	29000	17.9	8.4	8.2	95	40.	48
			1.5	29000	17.9	8.4	8.1	94	50.	--
			3.4	29000	17.9	8.4	7.9	92	40.	--
APR 14, 76	1015	4	.3	35000	24.5	8.3	7.7	104	--	33
			1.5	35000	24.3	8.3	7.9	105	10.	--
			3.7	35000	24.1	8.3	7.8	104	90.	--
JUN 09, 76	1110	4	.3	3600	26.8	--	9.1	116	--	30
			1.5	3600	26.5	--	9.1	116	110.	--
			3.7	5200	26.5	--	8.1	105	70.	--
AUG 18, 76	1020	4	.3	10000	29.0	8.5	8.0	108	70.	52
			2.0	10000	29.1	8.4	7.5	101	80.	--
			4.0	11000	29.3	8.3	6.4	88	--	--
					LINE 307					
OCT 23, 75	1325	3	.3	36000	25.0	8.4	7.1	96	15.	68
			1.5	36000	25.4	8.4	6.8	93	40.	--
FEB 05, 76	0900	3	.3	31000	17.4	8.4	8.0	93	20.	134
			1.8	36000	17.2	8.2	6.8	80	30.	--
APR 13, 76	1305	3	.3	41000	24.7	8.0	6.6	92	95.	50
			1.5	41000	24.1	8.0	5.8	79	300.	--
JUN 09, 76	1200	3	.3	20000	27.0	--	9.8	134	80.	50
			1.8	20000	27.0	--	7.6	104	90.	--
AUG 17, 76	1550	3	.3	18000	29.3	8.3	8.5	120	140.	46
			.9	16000	29.3	8.3	8.5	120	45.	--
			1.8	17000	29.7	8.3	6.5	92	165.	--
OCT 23, 75	1340	7	.3	32000	25.0	8.4	7.2	96	--	61
			1.8	33000	25.0	8.5	6.9	93	25.	--
			3.7	32000	25.0	8.5	6.4	85	140.	--
FEB 03, 76	1430	7	.3	19000	15.1	8.8	10.6	110	30.	86
			1.5	19000	14.7	8.8	10.2	105	35.	--
			3.4	19000	14.7	8.8	9.8	101	120.	--
APR 13, 76	1325	7	.3	34000	24.9	8.1	6.9	93	40.	36
			1.5	35000	24.2	8.1	6.1	81	20.	--
			3.7	35000	24.3	8.1	6.4	85	65.	--
APR 14, 76	0925	7	.3	31000	23.6	8.3	7.7	100	100.	33
			3.7	31000	23.7	8.3	7.1	92	70.	--
JUN 09, 76	1140	7	.3	18000	26.8	--	9.0	122	30.	40

TABLE 7A--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 307 CONTINUED					
JUN 09, 76	1140	7	1.5	18000	26.5	--	8.9	119	30.	--
			3.0	25000	27.0	--	7.6	105	140.	--
AUG 17, 76	1610	7	.3	18000	29.8	8.3	9.3	131	50.	38
			1.7	19000	29.8	8.2	7.4	105	130.	--
			3.4	18000	29.8	8.2	6.4	91	45.	--
					LINE 311					
OCT 24, 75	1205	4	.3	26000	26.0	8.5	6.7	89	100.	21
			1.5	26000	26.0	8.5	6.8	91	100.	--
FEB 05, 76	1050	4	.3	32000	18.9	8.3	8.1	96	30.	75
			.9	32000	18.8	8.3	8.0	95	10.	--
APR 14, 76	1135	4	.3	37000	24.8	8.2	6.8	92	150.	15
			1.2	37000	25.3	8.2	7.6	103	160.	--
JUN 09, 76	1005	4	.3	6000	26.5	8.4	8.7	111	80.	15
			1.2	5200	27.9	8.3	8.3	109	95.	--
AUG 18, 76	1145	4	.3	25000	29.3	8.4	10.0	145	--	58
			1.2	27000	29.5	8.4	8.4	124	120.	--
					LINE 314					
FEB 05, 76	1040	2	.3	32000	18.4	8.3	8.3	98	30.	86
			.9	32000	18.4	8.3	8.2	96	40.	--
APR 14, 76	1125	2	.3	40000	24.9	8.3	8.2	114	50.	26
			1.2	40000	25.2	8.3	8.0	111	120.	--
JUN 09, 76	1015	2	.3	9100	26.9	7.9	8.7	116	70.	30
			1.2	22000	27.0	7.6	5.8	80	65.	--
					LINE 317					
OCT 24, 75	1130	2	.3	45000	26.0	8.6	6.2	91	10.	54
			1.5	47000	26.1	8.6	5.8	85	25.	--
			3.4	50000	26.1	8.5	4.6	69	70.	--
AUG 18, 76	1120	2	.3	32000	29.7	8.3	6.4	96	50.	64
			2.1	52000	29.7	8.1	4.9	80	220.	--
					LINE 342					
OCT 23, 75	1230	1	.3	44000	25.0	8.6	6.5	93	15.	62
			1.8	44000	25.2	8.5	6.4	91	10.	--
FEB 05, 76	0840	1	.3	41000	16.9	8.3	8.0	96	0.	178
			2.1	41000	17.0	8.3	7.8	94	5.	--
APR 13, 76	1235	1	.3	44000	24.3	8.1	6.5	92	0.	126
			2.1	44000	24.5	8.1	6.5	93	0.	--
JUN 09, 76	1305	1	.3	35000	27.4	--	7.2	106	20.	60
			2.1	36000	27.2	--	4.6	68	45.	--
AUG 17, 76	1500	1	.3	33000	29.8	8.4	7.7	117	0.	88
			1.2	34000	29.8	8.4	7.0	107	5.	--
			2.4	34000	30.1	8.4	2.9	44	15.	--
OCT 23, 75	1240	2	.3	44000	24.9	8.6	6.8	97	0.	126
			2.1	44000	25.4	8.6	6.8	99	5.	--
FEB 05, 76	0830	2	.3	38000	16.8	8.3	8.0	95	20.	113

TABLE 7A--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 342 CONTINUED						
FEB 05, 76	0830	2	2.1	38000	16.9	8.3	7.9	94	20.	--
APR 13, 76	1220	2	.3	43000	24.2	8.2	6.6	92	10.	68
			2.1	43000	24.2	8.2	6.1	85	20.	--
JUN 09, 76	1255	2	.3	33000	27.1	--	7.2	104	10.	96
			2.4	37000	26.8	--	6.0	88	30.	--
AUG 17, 76	1510	2	.3	27000	29.7	8.6	7.4	109	0.	112
			1.2	29000	29.7	8.4	7.4	109	0.	--
			2.4	31000	29.8	8.3	5.5	83	5.	--
OCT 23, 75	1300	3	.3	40000	24.9	8.5	6.9	96	0.	100
			1.6	40000	25.0	8.5	7.0	97	0.	--
FEB 05, 76	0815	3	.3	32000	17.4	8.4	8.0	93	10.	106
			1.5	32000	17.3	8.4	8.0	93	30.	--
APR 13, 76	1245	3	.3	43000	24.6	8.2	6.8	96	15.	63
			1.8	43000	24.6	8.2	6.7	94	15.	--
JUN 09, 76	1240	3	.3	32000	27.0	--	6.7	97	10.	142
			2.1	29000	27.0	--	6.7	97	10.	--
AUG 17, 76	1530	3	.3	22000	29.9	8.4	8.6	124	10.	79
			1.8	24000	30.2	8.3	6.4	93	75.	--
				LINE 354						
OCT 23, 75	1210	3	.3	37000	24.9	8.5	6.8	92	20.	104
			1.5	40000	26.0	8.6	6.8	97	20.	--
FEB 03, 76	1415	3	.3	43000	16.2	8.2	8.8	105	20.	118
			1.2	46000	16.2	8.2	8.2	99	25.	--
APR 13, 76	1205	3	.3	44000	24.6	8.2	6.2	89	10.	53
			1.5	43000	24.9	8.2	6.2	87	10.	--
JUN 09, 76	1325	3	.3	43000	27.0	--	7.6	115	20.	59
			1.8	42000	27.1	--	7.5	114	30.	--
AUG 17, 76	1445	3	.3	36000	30.1	8.4	6.7	103	0.	106
			1.8	36000	30.3	8.4	6.1	96	0.	--

TABLE 7B--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N_3) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 80						
OCT 23, 75	1540	2	.3	--	.80	.02	.01	--	.31	2.3	--	--
			4.0	--	.53	.06	.02	--	.27	2.0	--	--
FEB 04, 76	1145	2	.3	--	1.20	.04	.03	--	.35	2.3	--	--
			3.4	--	.30	.07	.02	--	.52	3.0	--	--
APR 13, 76	1505	2	.3	--	.57	.09	.04	--	.34	1.6	--	--
			3.7	--	.33	.10	.07	--	.24	1.3	--	--
JUN 09, 76	1355	2	.3	--	.07	.02	.01	--	.11	2.2	--	--
			4.0	--	.08	.04	.01	--	.11	1.3	--	--
						LINE 160						
OCT 23, 75	1625	2	.3	--	2.00	.04	.02	--	.84	1.4	--	--
FEB 04, 76	1045	2	.3	--	1.70	.06	.02	--	.67	1.2	--	--
APR 13, 76	1600	2	.3	--	1.30	.01	.04	--	.59	2.5	--	--
JUN 09, 76	1305	2	.3	--	1.30	.05	.01	--	.31	1.1	--	7.2
						LINE 170						
AUG 18, 76	1050	2	.3	--	1.20	.04	.01	--	.24	.6	--	3.0
						LINE 200						
OCT 23, 75	1710	2	.3	--	1.80	.03	.01	--	.57	1.7	--	4.4
FEB 04, 76	1010	2	.3	--	1.80	.05	.01	--	.62	1.4	--	--
APR 13, 76	1530	2	.3	--	.65	.03	.02	--	.47	2.6	--	--
JUN 09, 76	1235	2	.3	--	.17	.06	.01	--	.13	2.7	--	11.0
AUG 18, 76	1030	2	.3	--	1.10	.02	.01	--	.25	.6	--	1.0
						LINE 243						
OCT 24, 75	1325	3	.3	8.2	.00	.04	.01	--	.18	3.3	--	6.6
			1.1	--	.01	.03	.01	--	.20	3.5	--	7.6
FEB 04, 76	0920	3	.3	5.4	1.50	.04	.03	--	.41	2.2	--	--
			.6	--	.87	.02	.01	--	.43	1.9	--	--
APR 13, 76	1440	3	.3	11.0	.63	.02	.04	--	.45	2.5	--	--
			.9	--	.64	.05	.02	--	.37	2.4	--	--
JUN 09, 76	1410	3	.3	13.0	.08	.02	.01	--	.14	2.5	--	10.0
			1.2	--	.10	.02	.01	--	.11	2.4	--	12.0
AUG 18, 76	1115	3	.3	--	.19	.04	.01	--	.14	1.1	--	1.8
			.9	13.0	.23	.05	.01	--	.15	1.0	--	3.4
						LINE 274						
OCT 23, 75	1600	2	.3	--	.00	.02	.01	--	.14	2.7	--	--
FEB 03, 76	1445	2	.3	--	.00	.00	.00	--	.19	4.1	--	--
APR 13, 76	1355	2	.3	--	.00	.03	.01	--	.18	1.8	--	--

TABLE 7B--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 274 CONTINUED						
JUN 09, 76	1140	2	.3	--	.14	.02	.02	--	.20	2.2	--	--
AUG 18, 76	0910	2	.3	--	.01	.07	.00	--	.14	1.3	--	3.4
OCT 23, 75	1520	5	.3	--	.07	.02	.01	--	.13	1.4	--	--
FEB 03, 76	1540	5	.3	--	.00	.02	.00	--	.11	2.6	--	--
APR 13, 76	1420	5	.3	--	.02	.09	.01	--	.15	3.2	--	--
JUN 09, 76	1110	5	.3	--	.27	.08	.01	--	.27	2.0	--	--
AUG 16, 76	0935	5	.3	--	.01	.01	.00	--	.16	.9	--	7.5
						LINE 287						
OCT 23, 75	1355	3	.3	8.6	.00	.00	.00	--	.13	--	--	6.2
FEB 03, 76	1415	3	.3	1.6	.00	.00	.00	--	.09	--	--	--
APR 14, 76	0920	3	.3	4.7	.00	.07	.01	--	.15	--	--	--
JUN 09, 76	1010	3	.3	--	.00	.03	.00	--	.13	2.1	--	6.6
AUG 18, 76	0930	3	.3	12.0	.05	.06	.01	--	.14	1.2	--	9.4
OCT 23, 75	1450	9	.3	8.2	.01	.01	.00	--	.13	1.2	--	--
FEB 05, 76	1000	9	.3	3.6	.00	.00	.00	--	.06	1.4	--	--
APR 14, 76	1000	9	.3	4.6	.01	.06	.01	--	.18	1.5	--	--
JUN 09, 76	1045	9	.3	11.0	.00	.04	.01	--	.18	2.5	--	--
AUG 18, 76	1010	9	.3	13.0	.01	.04	.00	--	.16	--	--	7.1
						LINE 294						
OCT 23, 75	1425	2	.3	--	.01	.01	.00	--	.11	1.1	--	--
FEB 05, 76	0930	2	.3	--	.00	.00	.01	--	.06	1.3	--	--
APR 14, 76	1025	2	.3	--	.00	.04	.01	--	.09	2.3	--	--
JUN 09, 76	1050	2	.3	--	.00	.04	.01	--	.20	2.2	--	--
AUG 18, 76	1040	2	.3	--	.00	.01	.01	--	.11	1.0	--	6.9
						LINE 307						
OCT 23, 75	1325	3	.3	--	.00	.02	.01	--	.08	.9	--	--
FEB 05, 76	0900	3	.3	--	.00	.00	.01	--	.06	1.1	--	--
APR 13, 76	1305	3	.3	--	.00	.07	.01	--	.06	2.3	--	--
JUN 09, 76	1200	3	.3	--	.00	.03	.01	--	.09	2.2	--	--
AUG 17, 76	1550	3	.3	--	.01	.03	.00	--	.13	1.0	--	10.0
						LINE 314						
FEB 05, 76	1040	2	.3	3.2	.00	.02	.01	--	.07	1.2	--	--
APR 14, 76	1125	2	.3	.7	.00	.10	.01	--	.08	2.2	--	--

TABLE 78--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 314 CONTINUED						
JUN 09, 76	1015	2	.3	9.5	.00	.02	.00	--	.16	3.0	--	--
						LINE 317						
OCT 24, 75	1130	2	.3	1.4	.01	.01	.00	--	.07	1.4	--	--
AUG 18, 76	1120	2	.3	7.2	.00	.06	.01	--	.10	1.3	--	10.0
						LINE 342						
OCT 23, 75	1240	2	.3	.6	.00	.01	.00	--	.04	1.0	--	--
			2.1	--	.00	.01	.00	--	.04	--	--	--
FEB 05, 76	0830	2	.3	1.2	.00	.02	.01	--	.06	1.4	--	--
			2.1	--	.00	.02	.01	--	.06	--	--	--
APR 13, 76	1220	2	.3	.2	.00	.05	.01	--	.04	1.4	--	--
			2.1	--	.00	.08	.01	--	.05	--	--	--
JUN 09, 76	1255	2	.3	3.8	.00	.10	.00	--	.04	1.8	--	--
			2.4	--	.00	.13	.00	--	.06	--	--	--
AUG 17, 76	1510	2	.3	8.0	.00	.04	.01	--	.09	1.2	--	7.8
			2.4	--	.01	.02	.00	--	.09	--	--	--

TABLE 7C--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (LAB)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNESIUM (MG) (MG/L)	DIS-SOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 80					
OCT 23, 75	1540	2	.3	4240	--	--	--	--	--	--	--
			4.0	6340	--	--	--	--	--	--	--
FEB 04, 76	1145	2	.3	3420	--	--	--	--	--	--	--
			3.4	7150	--	--	--	--	--	--	--
APR 13, 76	1505	2	.3	1210	--	--	--	--	--	--	--
			3.7	6010	--	--	--	--	--	--	--
JUN 09, 76	1355	2	.3	471	--	--	--	--	--	--	--
						LINE 160					
OCT 23, 75	1625	2	.3	747	--	--	--	--	--	--	--
FEB 04, 76	1045	2	.3	855	--	--	--	--	--	--	--
APR 13, 76	1600	2	.3	504	--	--	--	--	--	--	--
JUN 09, 76	1305	2	.3	575	--	--	--	--	--	--	--
						LINE 170					
AUG 18, 76	1050	2	.3	640	--	--	--	--	--	--	--
						LINE 200					
OCT 23, 75	1710	2	.3	736	--	--	--	--	--	--	--
FEB 04, 76	1010	2	.3	841	--	--	--	--	--	--	--
APR 13, 76	1530	2	.3	426	--	--	--	--	--	--	--
JUN 09, 76	1235	2	.3	4180	--	--	--	--	--	--	--
AUG 18, 76	1030	2	.3	638	--	--	--	--	--	--	--
						LINE 243					
OCT 24, 75	1325	3	.3	21700	170.0	500.0	--	200	970	6700	12400
			1.1	21100	--	--	--	--	--	--	--
FEB 04, 76	0920	3	.3	3530	96.0	80.0	--	258	160	950	1990
			.6	3830	--	--	--	--	--	--	--
APR 13, 76	1440	3	.3	1370	52.0	29.0	--	156	69	350	810
			.9	1840	--	--	--	--	--	--	--
JUN 09, 76	1410	3	.3	425	46.0	8.6	--	166	21	39	243
			1.2	429	--	--	--	--	--	--	--
AUG 18, 76	1115	3	.3	656	--	--	--	--	--	--	--
			.9	683	51.0	20.0	--	204	42	86	372
						LINE 274					
OCT 23, 75	1600	2	.3	20800	--	--	--	--	--	--	--
FEB 03, 76	1445	2	.3	14800	--	--	--	--	--	--	--
APR 13, 76	1355	2	.3	28800	--	--	--	--	--	--	--

TABLE 7C--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 274 CONTINUED					
JUN 09, 76	1140	2	.3	613	--	--	--	--	--	--	--
AUG 18, 76	0910	2	.3	8480	--	--	--	--	--	--	--
OCT 23, 75	1520	5	.3	18800	--	--	--	--	--	--	--
FEB 03, 76	1540	5	.3	22500	--	--	--	--	--	--	--
APR 13, 76	1420	5	.3	22400	--	--	--	--	--	--	--
JUN 09, 76	1110	5	.3	1850	--	--	--	--	--	--	--
AUG 18, 76	0935	5	.3	7380	--	--	--	--	--	--	--
						LINE 287					
OCT 23, 75	1355	3	.3	20700	160.0	500.0	--	198	960	6600	12300
FEB 03, 76	1415	3	.3	23900	220.0	540.0	--	201	1000	7900	14500
APR 14, 76	0920	3	.3	26200	240.0	610.0	--	184	1300	8700	16100
JUN 09, 76	1010	3	.3	5910	--	--	--	--	--	--	--
AUG 18, 76	0930	3	.3	6340	76.0	120.0	--	194	310	2000	3770
OCT 23, 75	1450	9	.3	24600	220.0	580.0	--	184	1200	8400	15500
FEB 05, 76	1000	9	.3	28600	260.0	680.0	--	178	1300	10000	18300
APR 14, 76	1000	9	.3	31900	240.0	610.0	--	186	1300	8600	15900
JUN 09, 76	1045	9	.3	3100	56.0	54.0	--	171	130	840	1650
AUG 18, 76	1010	9	.3	6410	71.0	120.0	--	189	280	1800	3420
						LINE 294					
OCT 23, 75	1425	2	.3	26400	--	--	--	--	--	--	--
FEB 05, 76	0930	2	.3	28400	--	--	--	--	--	--	--
APR 14, 76	1025	2	.3	25300	--	--	--	--	--	--	--
JUN 09, 76	1050	2	.3	3780	--	--	--	--	--	--	--
AUG 18, 76	1040	2	.3	15700	--	--	--	--	--	--	--
						LINE 307					
OCT 23, 75	1325	3	.3	36500	--	--	--	--	--	--	--
FEB 05, 76	0900	3	.3	30300	--	--	--	--	--	--	--
APR 13, 76	1305	3	.3	40600	--	--	--	--	--	--	--
JUN 09, 76	1200	3	.3	18700	--	--	--	--	--	--	--
AUG 17, 76	1550	3	.3	14900	--	--	--	--	--	--	--
						LINE 314					
FEB 05, 76	1040	2	.3	33000	290.0	780.0	--	180	1500	12000	21500
APR 14, 76	1125	2	.3	41000	340.0	990.0	--	154	2100	14000	25800

TABLE 7C--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 314 CONTINUED					
JUN 09, 76	1015	2	.3	9090	78.0	160.0	--	168	370	2700	4990
						LINE 317					
OCT 24, 75	1130	2	.3	46300	320.0	1100.0	--	158	2100	16000	29100
AUG 18, 76	1120	2	.3	32900	270.0	800.0	--	161	1600	12000	21600
						LINE 342					
OCT 23, 75	1240	2	.3	44000	340.0	960.0	--	162	1800	14000	25700
FEB 05, 76	0830	2	.3	39000	330.0	920.0	--	172	1800	14000	25600
APR 13, 76	1220	2	.3	42900	330.0	990.0	--	143	2200	16000	28500
JUN 09, 76	1255	2	.3	32900	260.0	800.0	--	150	1600	12000	21400
AUG 17, 76	1510	2	.3	26800	220.0	640.0	--	171	1200	9400	16900

TABLE 7D--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ALUMI-NUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)	
						LINE 160					
OCT 23, 75	1625	2	.3	0	2	--	--	1	--	--	
			3.7	--	--	--	2	--	--	< 10.00	
						LINE 200					
OCT 23, 75	1710	2	.3	2	2	--	--	0	--	--	
			1.2	--	--	--	2	--	--	< 10.00	
						LINE 274					
OCT 23, 75	1600	2	.3	0	2	--	--	0	--	--	
			1.5	--	--	--	5	--	--	< 10.00	
						LINE 317					
OCT 24, 75	1130	2	.3	2	1	--	--	0	--	--	
			3.4	--	--	--	6	--	--	< 10.00	
						LINE 342					
OCT 23, 75	1240	2	.3	20	1	--	--	0	--	--	
			2.1	--	--	--	3	--	--	< 10.00	

TABLE 7D--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DISSOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 160					
OCT 23, 75	1625	2	.3	.00	--	0	--	--	4	--	--
			3.7	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 200					
OCT 23, 75	1710	2	.3	.00	--	0	--	--	5	--	--
			1.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 274					
OCT 23, 75	1630	2	.3	.00	--	0	--	--	4	--	--
			1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 317					
OCT 24, 75	1130	2	.3	.00	--	0	--	--	2	--	--
			3.4	--	--	--	--	< 10.00	--	--	10.00
						LINE 342					
OCT 23, 75	1240	2	.3	.00	--	0	--	--	2	--	--
			2.1	--	--	--	--	< 10.00	--	--	< 10.00

TABLE 7D--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (PB) (UG/GM)
						LINE 160					
OCT 23, 75	1625	2	.3	--	--	40	--	--	16	--	--
			3.7	--	.0	--	--	--	--	--	< 10.00
						LINE 200					
OCT 23, 75	1710	2	.3	--	--	10	--	--	1	--	--
			1.2	--	.0	--	--	--	--	--	< 10.00
						LINE 274					
OCT 23, 75	1600	2	.3	--	--	40	--	--	0	--	--
			1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 317					
OCT 24, 75	1130	2	.3	--	--	90	--	--	3	--	--
			3.4	--	.0	--	--	--	--	--	< 10.00
						LINE 342					
OCT 23, 75	1240	2	.3	--	--	90	--	--	0	--	--
			2.1	--	.0	--	--	--	--	--	< 10.00

TABLE 7D--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITH-IUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	BOTTOM DEPOSIT MAN-GANESE (MN) (UG/GM)	DIS-SOLVED MER-CURY (HG) (UG/L)	TOTAL MER-CURY (HG) (UG/L)	BOTTOM DEPOSIT MER-CURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)
						LINE 160						
OCT 23, 75	1625	2	.3	20	4	--	--	.1	--	--	2	880
			3.7	--	--	--	130	--	--	.0	--	--
						LINE 200						
OCT 23, 75	1710	2	.3	20	0	--	--	.0	--	--	0	760
			1.2	--	--	--	150	--	--	.2	--	--
						LINE 274						
OCT 23, 75	1600	2	.3	70	3	--	--	.0	--	--	0	2200
			1.5	--	--	--	220	--	--	.3	--	--
						LINE 317						
OCT 24, 75	1130	2	.3	130	40	--	--	.0	--	--	0	6200
			3.4	--	--	--	650	--	--	.0	--	--
						LINE 342						
OCT 23, 75	1240	2	.3	120	40	--	--	.0	--	--	0	5900
			2.1	--	--	--	150	--	--	.1	--	--

TABLE 7D--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)
						LINE 160
OCT 23, 75	1625	2	.3	40	--	--
			3.7	--	--	20.00
						LINE 200
OCT 23, 75	1710	2	.3	0	--	--
			1.2	--	--	20.00
						LINE 274
OCT 23, 75	1600	2	.3	30	--	--
			1.5	--	--	20.00
						LINE 317
OCT 24, 75	1130	2	.3	40	--	--
			3.4	--	--	30.00
						LINE 342
OCT 23, 75	1240	2	.3	40	--	--
			2.1	--	--	160.00

TABLE 7E--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 274					
OCT 23, 75	1600	2	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 317					
OCT 24, 75	1130	2	3.4	--	.0	--	.0	--	.0	--	.0
						LINE 342					
OCT 23, 75	1240	2	2.1	--	.0	--	.0	--	.0	--	.0

TABLE 7E--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 274					
OCT 23, 75	1600	2	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 317					
OCT 24, 75	1130	2	3.4	--	.0	--	.0	--	.0	--	.0
						LINE 342					
OCT 23, 75	1240	2	2.1	--	.0	--	.0	--	.0	--	.0

TABLE 7E--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTACHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL MALATHION (UG/L)	TOTAL DIAZINON (UG/L)
						LINE 274					
OCT 23, 75	1600	2	1.5	--	.0	--	.0	--	--	--	--
						LINE 317					
OCT 24, 75	1130	2	3.4	--	.0	--	.0	--	--	--	--
						LINE 342					
OCT 23, 75	1240	2	2.1	--	.0	--	.0	--	--	--	--

TABLE 7E--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 160					
OCT 23, 75	1625	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 200					
OCT 23, 75	1710	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 274					
OCT 23, 75	1600	2	.3	--	--	.00	--	.00	--	.00	--
			1.5	--	.0	--	--	--	--	--	--
						LINE 317					
OCT 24, 75	1130	2	3.4	--	.0	--	--	--	--	--	--
						LINE 342					
OCT 23, 75	1240	2	.3	--	--	.00	--	.00	--	.00	--
			2.1	--	.0	--	--	--	--	--	--

TABLE 7E--QUALITY OF WATER IN THE GUADALUPE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION (UG/KG)
						LINE 160					
OCT 23, 75	1625	2	3.7	--	--	--	.0	--	.0	--	--
						LINE 200					
OCT 23, 75	1710	2	1.2	--	--	--	.0	--	.0	--	--
						LINE 274					
OCT 23, 75	1600	2	1.5	--	0.	--	.0	--	.0	--	--
						LINE 317					
OCT 24, 75	1130	2	3.4	--	0.	--	.0	--	.0	--	--
						LINE 342					
OCT 23, 75	1240	2	2.1	--	0.	--	.0	--	.0	--	--

Mission-Aransas Estuary

The Mission-Aransas estuary, which has an area of about 160 square miles (414 km²), consists of the tidal parts of Mission River, Aransas River, Copano Creek and other tributaries, Mission Bay, Copano Bay, Aransas Bay, St. Charles Bay, Carlos Bay, part of Redfish Bay, part of the Intracoastal Waterway, Lydia Ann Channel, and Aransas Pass (Figure 9). Water depth at mean low water is less than 2 feet (0.6 m) in Mission Bay, less than 8 feet (2.4 m) in Copano Bay, less than 13 feet (4.0 m) in Aransas Bay, less than 5 feet (1.5 m) in St. Charles Bay, 4 feet (1.2 m) or less in Carlos and Redfish Bays, about 15 feet (4.6 m) in the Intracoastal Waterway, about 20 feet (6.1 m) in the Lydia Ann Channel, and more than 40 feet (12.2 m) in Aransas Pass.

Water-quality data (Table 8) were collected during November 1975 and February, April, June, and August 1976.

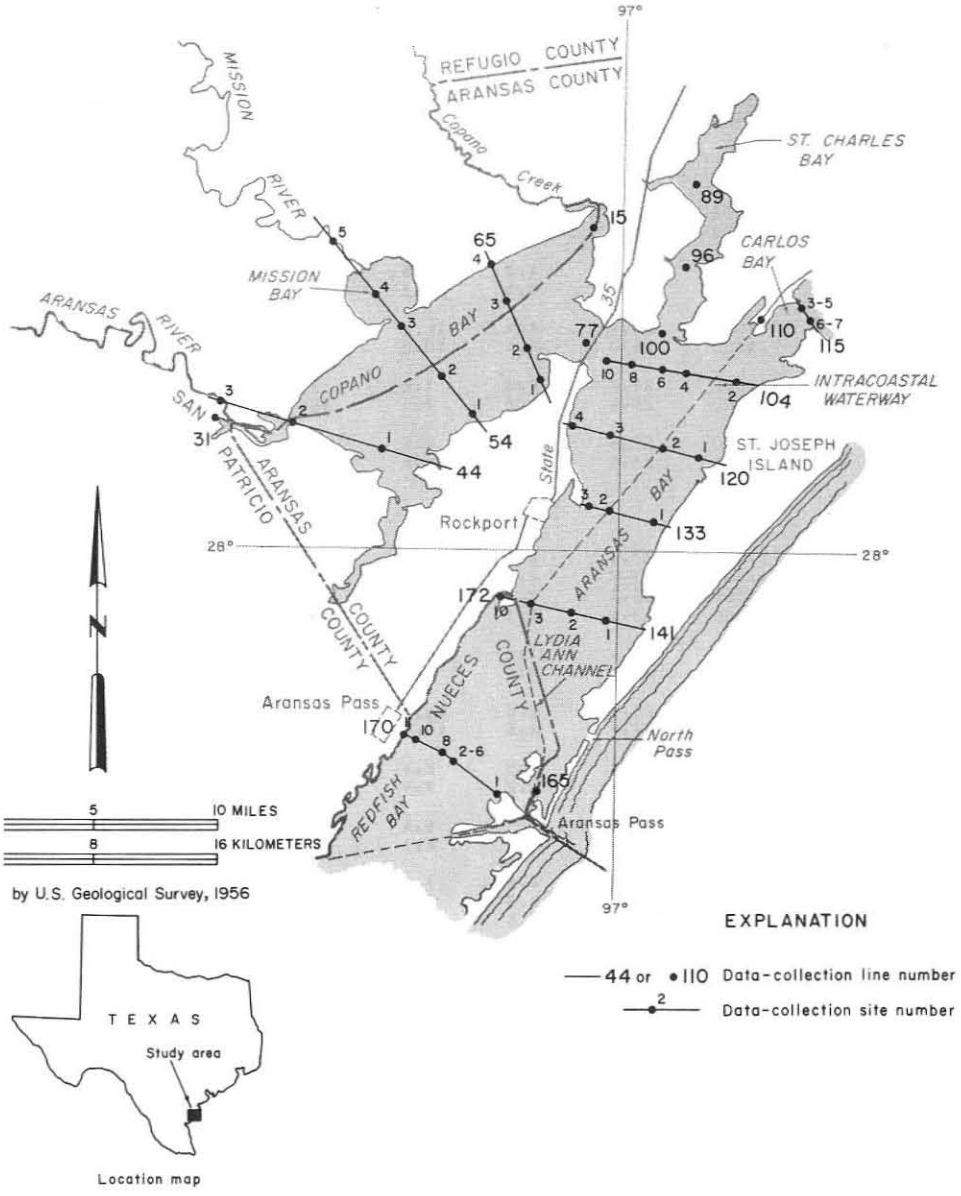

Figure 9.—Data-Collection Sites in the Mission-Aransas Estuary

TABLE 8A--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)	
					LINE 15						
NOV 03, 75	1110	2	.3	22000	24.0	8.3	7.3	92	10.	110	
			.9	22000	23.9	8.3	6.4	81	10.	--	
			1.8	22000	23.4	8.2	6.7	84	10.	--	
FEB 05, 76	1130	2	.3	26000	18.2	7.8	8.3	95	32.	134	
			1.2	25000	18.2	7.8	8.4	97	--	--	
APR 19, 76	1420	2	.3	32000	24.2	8.5	--	--	30.	76	
			1.5	32000	24.0	8.5	--	--	35.	--	
JUN 07, 76	1515	2	.3	19000	28.4	8.3	6.5	90	0.	--	
			1.5	19000	28.4	8.3	6.3	87	10.	--	
AUG 19, 76	1225	2	.3	13000	27.2	--	6.3	84	40.	61	
			1.5	13000	27.2	--	6.5	86	45.	--	
					LINE 44						
NOV 03, 75	1010	2	.3	13000	23.4	8.5	6.7	81	25.	67	
			1.5	22000	23.1	8.3	6.6	81	100.	--	
FEB 05, 76	1000	2	.3	25000	18.8	7.7	8.5	99	30.	27	
			.6	25000	18.7	7.7	7.3	85	--	--	
APR 19, 76	1305	2	.3	29000	23.5	8.4	10.1	129	60.	29	
			1.5	29000	24.0	8.4	10.0	130	80.	--	
JUN 07, 76	1630	2	.3	15000	29.0	8.3	7.0	96	60.	--	
			1.5	15000	28.6	8.2	7.3	100	110.	--	
AUG 19, 76	1020	2	.3	7600	27.6	--	8.8	114	120.	25	
			1.1	7600	27.8	--	8.6	113	120.	--	
					LINE 54						
NOV 03, 75	0925	1	.3	22000	23.9	8.3	7.0	89	15.	89	
			1.2	22000	23.7	8.1	6.8	85	40.	--	
			1.8	22000	23.8	8.2	7.0	89	15.	--	
			2.4	29000	23.1	8.1	6.3	80	25.	--	
FEB 05, 76	1030	1	.3	26000	17.4	7.6	8.2	93	31.	70	
			1.8	26000	17.5	7.6	7.7	88	--	--	
APR 19, 76	1240	1	.3	30000	23.9	8.5	10.4	137	80.	44	
			2.1	30000	23.9	8.5	10.4	137	40.	--	
JUN 07, 76	1600	1	.3	21000	28.5	8.3	7.1	100	10.	--	
			2.1	21000	28.5	8.2	7.4	104	10.	--	
AUG 19, 76	0945	1	.3	9000	27.3	--	6.4	85	80.	33	
			1.8	9000	27.4	--	6.3	83	80.	--	
NOV 03, 75	1030	2	.3	21000	23.7	8.3	7.2	90	45.	118	
			1.2	21000	23.7	8.3	7.2	90	55.	--	
			2.4	21000	22.7	8.5	7.0	86	20.	--	
FEB 05, 76	1045	2	.3	26000	17.1	7.6	8.6	97	--	36	
			1.8	26000	17.1	7.6	8.3	93	--	--	
APR 19, 76	1330	2	.3	29000	23.3	8.4	10.5	133	110.	25	
			2.1	29000	23.4	8.4	10.1	129	95.	--	
JUN 07, 76	1545	2	.3	20000	28.4	8.3	7.1	99	15.	--	
			2.1	20000	28.3	8.3	6.9	96	10.	--	

TABLE 8A--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 54 CONTINUED					
AUG 19, 76	1055	2	.3	7500	27.0	--	6.7	87	80.	33
			1.5	7500	27.0	--	6.9	90	75.	--
NOV 03, 75	1045	3	.3	20000	23.6	8.2	6.8	85	20.	75
			1.5	21000	23.2	8.3	6.7	83	30.	--
FEB 05, 76	1100	3	.3	24000	18.3	7.7	7.9	90	--	41
			.9	24000	18.2	7.7	7.8	89	--	--
APR 19, 76	1340	3	.3	29000	23.5	8.4	11.0	141	115.	14
			1.5	29000	23.5	8.4	10.7	137	105.	--
JUN 07, 76	1535	3	.3	21000	28.2	8.4	6.6	93	20.	--
			1.2	21000	28.3	8.3	6.6	93	10.	--
AUG 19, 76	1110	3	.3	8000	27.0	--	6.4	85	80.	38
			1.2	8000	27.0	--	6.4	85	80.	--
					LINE 77					
NOV 03, 75	1155	2	.3	23000	24.0	8.3	7.2	91	25.	120
			1.5	22000	23.9	8.3	7.2	91	20.	--
			3.0	22000	23.8	8.3	7.0	89	35.	--
FEB 05, 76	1200	2	.3	30000	17.1	7.8	8.3	95	33.	134
			1.5	30000	17.1	7.8	8.2	94	--	--
			2.7	30000	17.1	7.8	8.1	93	--	--
APR 19, 76	1220	2	.3	34000	24.0	8.5	9.2	123	40.	55
			1.5	35000	23.9	8.4	9.3	124	40.	--
			3.0	36000	24.0	8.4	8.7	116	40.	--
					LINE 89					
NOV 03, 75	1305	2	.3	13000	24.7	8.4	7.4	91	25.	90
			1.5	22000	25.0	8.4	6.8	87	45.	--
FEB 05, 76	1245	2	.3	22000	18.9	7.9	8.2	94	34.	54
			1.2	22000	18.9	7.9	8.0	92	--	--
APR 14, 76	1010	2	.3	27000	23.0	8.3	7.0	89	75.	19
			1.5	26000	23.0	8.3	7.1	89	90.	--
JUN 07, 76	1410	2	.3	21000	28.1	8.2	5.9	83	10.	--
			1.5	19000	28.1	8.2	5.9	82	10.	--
AUG 19, 76	1335	2	.3	7700	27.0	--	6.3	82	100.	30
			.9	7700	27.0	--	6.0	78	120.	--
					LINE 104					
NOV 03, 75	1405	2	.3	28000	25.2	8.2	6.6	87	70.	80
			1.5	29000	25.4	8.2	6.6	88	95.	--
FEB 05, 76	1110	2	.3	29000	18.5	8.4	8.4	98	0.	98
			.9	29000	18.5	8.4	8.1	94	10.	--
APR 14, 76	1200	2	.3	35000	24.7	8.3	8.4	114	100.	20
			1.5	35000	24.7	8.3	7.8	105	90.	--
APR 19, 76	1150	2	.3	38000	24.0	8.4	8.1	109	50.	42
			1.5	37000	24.0	8.4	7.9	105	40.	--
JUN 07, 76	1430	2	.3	15000	28.2	7.8	6.7	91	60.	40
			1.5	14000	28.8	7.8	3.0	41	80.	--
JUN 09, 76	0940	2	.3	8400	26.8	8.4	7.5	100	35.	22

TABLE 8A--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 104 CONTINUED					
JUN 09, 76	0940	2	1.5	13000	27.0	8.2	6.5	86	65.	--
AUG 18, 76	1220	2	.3	24000	29.7	8.5	11.3	163	5.	56
			1.4	24000	30.1	8.4	9.4	136	5.	--
AUG 19, 76	1135	2	.3	23000	28.5	8.5	6.5	92	20.	45
			1.5	23000	28.2	8.5	6.1	86	60.	--
NOV 03, 75	1235	8	.3	24000	24.6	8.3	7.2	92	20.	125
			1.2	25000	24.6	8.3	6.9	90	160.	--
			2.4	25000	24.8	8.2	6.7	87	35.	--
FEB 05, 76	1215	8	.3	30000	17.4	7.8	7.9	92	--	55
			1.5	30000	17.3	7.8	7.6	88	--	--
APR 19, 76	1210	8	.3	37000	24.2	8.4	8.8	117	50.	30
			2.1	37000	24.3	8.4	8.3	111	60.	--
JUN 07, 76	1400	8	.3	15000	27.2	8.3	8.1	108	10.	79
			2.1	16000	27.2	8.2	7.2	97	40.	--
AUG 19, 76	1215	8	.3	34000	28.6	8.3	5.7	84	45.	112
			1.1	25000	29.6	8.3	5.7	83	5.	--
			2.1	34000	30.2	8.2	4.6	69	220.	--
					LINE 110					
NOV 03, 75	1350	2	.3	23000	24.8	8.3	7.1	91	55.	76
			1.5	23000	24.9	8.3	7.0	90	50.	--
			3.0	23000	24.9	8.3	7.0	90	60.	--
			4.3	23000	25.7	8.2	6.8	88	55.	--
FEB 05, 76	1130	2	.3	27000	17.8	8.4	8.4	96	25.	65
			1.5	27000	17.7	8.4	8.4	97	20.	--
			3.7	27000	17.8	8.4	8.0	93	20.	--
APR 14, 76	1215	2	.3	36000	24.9	8.3	9.4	127	10.	56
			1.5	36000	24.8	8.3	8.8	119	10.	--
			3.7	36000	24.4	8.2	8.3	111	20.	--
APR 19, 76	1135	2	.3	32000	23.9	8.5	8.4	111	5.	78
			1.8	34000	23.8	8.5	8.0	107	10.	--
			4.0	34000	23.8	8.4	7.7	103	10.	--
JUN 09, 76	0920	2	.3	4500	27.0	8.7	6.9	89	55.	21
			1.5	4500	26.9	8.4	6.5	84	60.	--
			4.3	16000	27.6	7.6	4.9	67	90.	--
AUG 19, 76	1155	2	.3	15000	28.7	8.4	5.8	78	160.	37
			2.0	15000	28.7	8.4	5.6	75	160.	--
			4.0	22000	29.3	8.4	5.0	71	> 500.	--
					LINE 115					
NOV 03, 75	1415	5	.3	30000	25.1	8.4	7.7	103	45.	66
			1.2	30000	25.8	8.2	8.2	112	45.	--
FEB 05, 76	1100	5	.3	29000	19.1	8.3	8.0	94	70.	36
			.9	29000	19.1	8.3	7.8	92	100.	--
APR 14, 76	1145	5	.3	37000	24.7	8.1	7.4	100	140.	17
			1.2	37000	24.9	8.1	7.4	100	200.	--
JUN 09, 76	0950	5	.3	15000	26.3	8.4	7.7	103	20.	43
			1.2	15000	26.3	8.4	7.2	96	25.	--
AUG 18, 76	1205	5	.3	23000	29.8	8.5	9.1	132	0.	47

TABLE 8A--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 115 CONTINUED					
AUG 18, 76	1205	5	1.2	24000	29.9	8.6	8.7	127	10.	--
					LINE 120					
NOV 03, 75	1445	1	.3	26000	24.6	8.3	7.6	99	20.	84
			1.8	26000	24.6	8.3	7.2	94	40.	--
			3.7	26000	25.0	8.3	6.8	88	40.	--
FEB 05, 76	1150	1	.3	31000	17.0	8.5	9.0	103	60.	172
			1.5	31000	17.0	8.5	8.9	102	90.	--
			3.4	31000	16.9	8.5	8.8	101	130.	--
APR 19, 76	1110	1	.3	36000	24.0	8.5	7.7	103	10.	--
			1.5	36000	24.0	8.5	7.6	101	20.	--
			3.0	40000	24.1	8.5	6.2	85	20.	--
JUN 07, 76	1450	1	.3	21000	28.4	8.2	7.3	103	10.	107
			1.5	28000	28.1	8.2	7.0	100	10.	--
			3.7	27000	28.2	7.9	4.2	60	30.	--
AUG 19, 76	1115	1	.3	37000	29.3	8.4	5.0	78	40.	54
			1.8	37000	29.6	8.4	4.4	68	45.	--
			3.7	34000	29.7	8.2	3.9	59	120.	--
NOV 03, 75	1500	3	.3	24000	24.7	8.3	7.8	100	15.	148
			1.5	25000	24.7	8.3	7.3	95	50.	--
			2.7	25000	25.3	8.3	6.6	86	325.	--
FEB 05, 76	1205	3	.3	28000	17.1	8.4	8.2	93	30.	93
			2.1	28000	17.0	8.4	8.3	94	30.	--
JUN 07, 76	1345	3	.3	18000	28.8	8.2	8.3	115	30.	63
			2.4	18000	28.0	8.2	8.4	115	--	--
AUG 19, 76	1230	3	.3	32000	29.3	8.4	6.7	100	60.	100
			2.7	31000	30.3	8.2	4.2	64	40.	--
					LINE 141					
NOV 03, 75	1520	2	.3	22000	24.4	8.4	7.8	99	5.	132
			1.5	26000	24.6	8.3	6.8	88	5.	--
			2.1	30000	24.5	8.4	7.6	100	10.	--
			3.4	30000	24.8	8.3	6.5	87	15.	--
FEB 05, 76	1310	2	.3	37000	17.1	8.4	8.4	99	30.	178
			2.1	41000	16.8	8.4	8.2	99	30.	--
APR 19, 76	1040	2	.3	40000	24.1	8.5	7.2	99	0.	84
			1.5	42000	24.0	8.5	6.5	90	0.	--
			3.0	42000	24.0	8.4	5.9	82	0.	--
JUN 07, 76	1520	2	.3	28000	28.0	8.2	7.3	104	10.	67
			1.5	28000	27.8	8.1	6.4	91	15.	--
			3.0	27000	28.3	8.1	6.5	95	30.	--
AUG 19, 76	1040	2	.3	32000	28.8	8.5	5.7	84	10.	150
			1.5	34000	28.9	8.5	5.2	78	30.	--
			3.0	34000	29.3	8.4	4.3	64	45.	--
NOV 03, 75	1615	3	.3	28000	24.7	8.4	7.6	100	15.	130
			1.2	30000	24.6	8.4	7.3	97	35.	--
			2.7	35000	26.0	8.3	6.8	94	40.	--
FEB 05, 76	1400	3	.3	35000	17.2	8.4	8.6	101	0.	182
			1.5	37000	17.2	8.4	8.5	100	0.	--
			3.4	37000	16.9	8.4	8.1	95	10.	--
APR 19, 76	0945	3	.6	37000	24.0	8.5	7.2	96	10.	92

TABLE 8A--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 141 CONTINUED						
APR 19, 76	0945	3	1.8	37000	23.9	8.5	7.3	97	5.	--
			4.0	43000	23.9	8.4	9.5	90	20.	--
JUN 07, 76	1540	3	.3	27000	28.1	8.2	7.2	103	10.	93
			1.5	36000	28.0	8.2	6.8	101	20.	--
			3.7	41000	27.7	8.0	5.4	82	30.	--
AUG 19, 76	0945	3	.3	31000	28.8	8.6	4.5	66	10.	117
			2.0	34000	28.8	8.6	4.7	70	10.	--
			4.0	35000	29.2	8.5	4.6	68	10.	--
				LINE 165						
NOV 03, 75	1550	2	.3	35000	24.5	8.3	6.8	92	15.	120
			1.5	35000	24.5	8.3	6.8	92	35.	--
			3.0	35000	24.5	8.3	6.8	92	25.	--
			4.3	35000	24.5	8.3	6.7	91	50.	--
			5.5	35000	25.5	8.2	6.4	88	35.	--
FEB 05, 76	1335	2	.3	43000	17.4	8.3	7.6	93	0.	168
			1.5	43000	17.4	8.3	8.0	98	0.	--
			3.0	43000	17.2	8.3	7.9	96	0.	--
			5.2	43000	17.2	8.3	7.7	94	0.	--
APR 19, 76	1020	2	.3	42000	24.0	8.5	6.7	93	5.	86
			1.5	42000	23.9	8.5	6.7	93	5.	--
			4.6	42000	24.0	8.5	6.5	90	20.	--
			6.7	42000	24.0	8.5	6.9	96	30.	--
MAY 02, 76	1335	2	.0	43000	17.4	8.3	7.6	93	0.	16
			1.5	43000	17.4	8.3	8.0	98	0.	--
			3.0	43000	17.2	8.3	7.9	96	0.	--
			5.2	43000	17.2	8.3	7.7	94	0.	--
JUN 08, 76	1540	2	.3	46000	27.9	8.0	8.9	139	--	50
			3.0	46000	27.6	7.9	8.5	132	30.	--
			5.5	46000	27.8	7.9	8.4	131	30.	--
AUG 19, 76	1010	2	.3	37000	29.4	8.4	3.9	60	0.	350
			3.0	38000	29.4	8.4	3.8	59	0.	--
			6.1	39000	29.6	8.4	3.6	55	0.	--

TABLE 8B--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 15						
NOV 03, 75	1110	2	.3	9.1	.01	.02	.00	--	.06	.3	--	--
FEB 05, 76	1130	2	.3	6.6	--	--	--	--	--	1.1	--	--
APR 19, 76	1420	2	.3	3.4	.01	.08	.01	--	.04	1.4	--	--
JUN 07, 76	1515	2	.3	6.1	.00	.05	.01	--	.05	1.6	--	14.0
AUG 19, 76	1225	2	.3	14.0	.01	.04	.00	--	.08	1.0	--	8.8
						LINE 44						
NOV 03, 75	1010	2	.3	9.8	.11	.04	.00	--	.11	.8	--	--
FEB 05, 76	1000	2	.3	6.5	.00	.03	.01	--	.07	1.2	--	--
APR 19, 76	1305	2	.3	7.2	.00	.07	.00	--	.08	1.2	--	--
JUN 07, 76	1630	2	.3	11.0	.00	.06	.00	--	.12	2.2	--	7.6
AUG 19, 76	1020	2	.3	16.0	.01	.05	.00	--	.13	1.6	--	5.7
						LINE 54						
NOV 03, 75	0925	1	.3	--	.00	.07	.00	--	.07	.3	--	--
FEB 05, 76	1030	1	.3	--	.00	.01	.01	--	.06	.9	--	--
APR 19, 76	1240	1	.3	--	.00	.08	.01	--	.06	1.1	--	--
JUN 07, 76	1600	1	.3	--	.00	.07	.00	--	.05	1.5	--	--
AUG 19, 76	0945	1	.3	--	.00	.05	.01	--	.11	.8	--	5.8
						LINE 77						
NOV 03, 75	1155	2	.3	8.4	.01	.05	.00	--	.08	.2	--	--
FEB 05, 76	1200	2	.3	5.1	.00	.04	.03	--	.06	.8	--	--
APR 19, 76	1220	2	.3	3.6	.00	.09	.01	--	.05	1.1	--	--
						LINE 89						
NOV 03, 75	1305	2	.3	13.0	.00	.01	.00	--	.04	.6	--	--
FEB 05, 76	1245	2	.3	6.5	.00	.01	.00	--	.04	1.6	--	--
APR 14, 76	1010	2	.3	8.3	.00	.07	.01	--	.08	1.8	--	--
JUN 07, 76	1410	2	.3	12.0	.00	.08	.00	--	.03	1.8	--	--
AUG 19, 76	1335	2	.3	22.0	.00	.05	.01	--	.10	1.4	--	9.8
						LINE 115						
NOV 03, 75	1415	5	.3	6.7	.00	.03	.00	--	.09	.4	--	--
FEB 05, 76	1100	5	.3	3.6	.00	.04	.01	--	.11	1.0	--	--
APR 14, 76	1145	5	.3	3.3	.03	.13	.02	--	.21	1.3	--	--

TABLE 8B--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
					LINE 115 CONTINUED							
JUN 09, 76	0950	5	.3	--	.00	.04	.00	--	.08	1.7	--	--
AUG 18, 76	1205	5	.3	6.7	.01	.02	.00	--	.09	1.0	--	5.4
					LINE 120							
APR 19, 76	1110	1	.3	--	.00	.08	.00	--	.03	.9	--	--
			3.0	--	.00	.12	.01	--	.03	--	--	--
					LINE 141							
NOV 03, 75	1520	2	.3	--	.00	.04	.00	--	.06	.5	--	--
			3.4	--	.00	.02	.00	--	.06	--	--	--
FEB 05, 76	1310	2	.3	--	.01	.05	.01	--	.04	1.2	--	--
			2.1	--	.00	.07	.01	--	.05	--	--	--
JUN 07, 76	1520	2	.3	--	.00	.10	.00	--	.04	1.7	--	--
			3.0	--	.00	.10	.00	--	.08	--	--	--
AUG 19, 76	1040	2	.3	7.0	.01	.05	.00	--	.06	.8	--	2.8
			3.0	5.8	--	--	--	--	--	--	--	--

TABLE 8C--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 15					
NOV 03, 75	1110	2	.3	21500	200.0	500.0	--	135	1000	7300	13100
FEB 05, 76	1130	2	.3	23800	210.0	530.0	--	152	1000	7800	14400
APR 19, 76	1420	2	.3	33100	290.0	800.0	--	166	1600	12000	21500
JUN 07, 76	1515	2	.3	20900	180.0	470.0	--	145	920	7100	12700
AUG 19, 76	1225	2	.3	13200	100.0	270.0	--	130	570	4300	7720
						LINE 44					
NOV 03, 75	1010	2	.3	13200	170.0	290.0	--	129	600	4200	7740
FEB 05, 76	1000	2	.3	23900	210.0	530.0	--	159	1000	8000	14600
APR 19, 76	1305	2	.3	28400	250.0	660.0	--	152	1300	9600	17500
JUN 07, 76	1630	2	.3	15000	140.0	340.0	--	136	690	5100	9260
AUG 19, 76	1020	2	.3	7600	67.0	130.0	--	168	300	2300	4260
						LINE 54					
NOV 03, 75	0925	1	.3	21900	--	--	--	--	--	--	--
FEB 05, 76	1030	1	.3	24600	--	--	--	--	--	--	--
APR 19, 76	1240	1	.3	29400	--	--	--	--	--	--	--
JUN 07, 76	1600	1	.3	20900	--	--	--	--	--	--	--
AUG 19, 76	0945	1	.3	8710	--	--	--	--	--	--	--
						LINE 77					
NOV 03, 75	1155	2	.3	22800	190.0	520.0	--	150	1100	7000	13300
FEB 05, 76	1200	2	.3	27900	240.0	630.0	--	155	1200	9500	17200
APR 19, 76	1220	2	.3	33400	270.0	790.0	--	162	1700	12000	21700
						LINE 89					
NOV 03, 75	1305	2	.3	13300	130.0	280.0	--	156	610	4300	7910
FEB 05, 76	1245	2	.3	20300	190.0	480.0	--	177	890	6900	12500
APR 14, 76	1010	2	.3	26700	260.0	650.0	--	172	1300	9200	16800
JUN 07, 76	1410	2	.3	20900	210.0	500.0	--	159	1100	8000	14300
AUG 19, 76	1335	2	.3	7580	64.0	120.0	--	174	310	2300	4260
						LINE 115					
NOV 03, 75	1415	5	.3	27500	250.0	670.0	--	170	1400	10000	18100
FEB 05, 76	1100	5	.3	32100	270.0	730.0	--	187	1400	11000	19900
APR 14, 76	1145	5	.3	37000	300.0	860.0	--	165	1800	13000	23600

TABLE 8C--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 115 CONTINUED						
JUN 09, 76	0950	5	.3	15800	--	--	--	--	--	--	--
AUG 18, 76	1205	5	.3	24100	200.0	550.0	--	155	1100	8200	14800
					LINE 120						
APR 19, 76	1110	1	.3	40100	--	--	--	--	--	--	--
					LINE 141						
NOV 03, 75	1520	2	.3	26700	--	--	--	--	--	--	--
FEB 05, 76	1310	2	.3	40200	--	--	--	--	--	--	--
JUN 07, 76	1520	2	.3	27500	--	--	--	--	--	--	--
AUG 19, 76	1040	2	.3	32500	270.0	800.0	--	148	1600	12000	21300
			3.0	33900	300.0	850.0	--	151	1800	12000	22300

TABLE 8D--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DISSOLVED ALUMINUM (AL) (UG/L)	DISSOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DISSOLVED CADMIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)	
						LINE 15					
NOV 03, 75	1110	2	.3	20	4	--	--	3	--	--	
			1.8	--	--	--	3	--	--	< 10.00	
						LINE 44					
NOV 03, 75	1010	2	.3	30	14	--	--	3	--	--	
			1.5	--	--	--	6	--	--	< 10.00	
						LINE 54					
NOV 03, 75	0925	1	.3	30	3	--	--	1	--	--	
			2.4	--	--	--	7	--	--	< 10.00	
						LINE 77					
NOV 03, 75	1155	2	.3	20	3	--	--	5	--	--	
			3.0	--	--	--	6	--	--	< 10.00	
						LINE 89					
NOV 03, 75	1305	2	.3	70	5	--	--	2	--	--	
			1.5	--	--	--	4	--	--	< 10.00	
						LINE 115					
NOV 03, 75	1415	5	.3	50	2	--	--	1	--	--	
			1.2	--	--	--	5	--	--	< 10.00	
						LINE 141					
NOV 03, 75	1520	2	.3	20	2	--	--	3	--	--	
			3.4	--	--	--	5	--	--	< 10.00	

TABLE 8D--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 15					
NOV 03, 75	1110	2	.3	.00	--	0	--	--	3	--	--
			1.8	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 44					
NOV 03, 75	1010	2	.3	.00	--	0	--	--	3	--	--
			1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 54					
NOV 03, 75	0925	1	.3	.00	--	0	--	--	14	--	--
			2.4	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 77					
NOV 03, 75	1155	2	.3	.00	--	0	--	--	11	--	--
			3.0	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 89					
NOV 03, 75	1305	2	.3	.00	--	0	--	--	3	--	--
			1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 115					
NOV 03, 75	1415	5	.3	.00	--	0	--	--	2	--	--
			1.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 141					
NOV 03, 75	1520	2	.3	.00	--	0	--	--	2	--	--
			3.4	--	--	--	--	< 10.00	--	--	< 10.00

TABLE 8D--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (PB) (UG/GM)
						LINE 15					
NOV 03, 75	1110	2	.3	--	--	10	--	--	15	--	--
			1.8	--	.0	--	--	--	--	--	< 10.00
						LINE 44					
NOV 03, 75	1010	2	.3	--	--	20	--	--	24	--	--
			1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 54					
NOV 03, 75	0925	1	.3	--	--	20	--	--	10	--	--
			2.4	--	.0	--	--	--	--	--	< 10.00
						LINE 77					
NOV 03, 75	1155	2	.3	--	--	40	--	--	36	--	--
			3.0	--	.0	--	--	--	--	--	< 10.00
						LINE 89					
NOV 03, 75	1305	2	.3	--	--	40	--	--	14	--	--
			1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 115					
NOV 03, 75	1415	5	.3	--	--	20	--	--	13	--	--
			1.2	--	.0	--	--	--	--	--	< 10.00
						LINE 141					
NOV 03, 75	1520	2	.3	--	--	60	--	--	21	--	--
			3.4	--	.0	--	--	--	--	--	< 10.00

TABLE 8D--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITH-IUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	BOTTOM DEPOSIT MAN-GANESE (MN) (UG/GM)	DIS-SOLVED MER-CURY (HG) (UG/L)	TOTAL MER-CURY (HG) (UG/L)	BOTTOM DEPOSIT MER-CURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)
						LINE 15						
NOV 03, 75	1110	2	.3	80	40	--	--	.0	--	--	0	2000
			1.8	--	--	--	110	--	--	.2	--	--
						LINE 44						
NOV 03, 75	1010	2	.3	60	60	--	--	.0	--	--	0	1600
			1.5	--	--	--	270	--	--	.2	--	--
						LINE 54						
NOV 03, 75	0925	1	.3	90	70	--	--	.2	--	--	0	2000
			2.4	--	--	--	310	--	--	.2	--	--
						LINE 77						
NOV 03, 75	1155	2	.3	80	60	--	--	.0	--	--	0	1900
			3.0	--	--	--	340	--	--	.2	--	--
						LINE 89						
NOV 03, 75	1305	2	.3	50	60	--	--	.0	--	--	0	1200
			1.5	--	--	--	110	--	--	.2	--	--
						LINE 115						
NOV 03, 75	1415	5	.3	90	80	--	--	.1	--	--	0	2100
			1.2	--	--	--	270	--	--	.2	--	--
						LINE 141						
NOV 03, 75	1520	2	.3	90	60	--	--	.1	--	--	0	2000
			3.4	--	--	--	240	--	--	.2	--	--

TABLE 8D--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)
						LINE 15
NOV 03, 75	1110	2	.3	40	--	--
			1.8	--	--	20.00
						LINE 44
NOV 03, 75	1010	2	.3	40	--	--
			1.5	--	--	30.00
						LINE 54
NOV 03, 75	0925	1	.3	50	--	--
			2.4	--	--	20.00
						LINE 77
NOV 03, 75	1155	2	.3	30	--	--
			3.0	--	--	30.00
						LINE 89
NOV 03, 75	1305	2	.3	30	--	--
			1.5	--	--	20.00
						LINE 115
NOV 03, 75	1415	5	.3	20	--	--
			1.2	--	--	20.00
						LINE 141
NOV 03, 75	1520	2	.3	30	--	--
			3.4	--	--	30.00

TABLE 8E--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 15					
NOV 03, 75	1110	2	1.8	--	.0	--	.0	--	.0	--	.0
						LINE 44					
NOV 03, 75	1010	2	1.5	--	.0	--	.0	--	.2	--	2.0
						LINE 89					
NOV 03, 75	1305	2	1.5	--	.0	--	.0	--	.0	--	.9
						LINE 115					
NOV 03, 75	1415	5	1.2	--	.0	--	.0	--	.0	--	.0
						LINE 141					
NOV 03, 75	1520	2	3.4	--	.0	--	.0	--	.0	--	.0

TABLE 8E--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 15					
NOV 03, 75	1110	2	1.8	--	.0	--	.0	--	.0	--	.0
						LINE 44					
NOV 03, 75	1010	2	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 89					
NOV 03, 75	1305	2	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 115					
NOV 03, 75	1415	5	1.2	--	.0	--	.0	--	.0	--	.0
						LINE 141					
NOV 03, 75	1520	2	3.4	--	.0	--	.0	--	.0	--	.0

TABLE 8E--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL DIAZ-INON (UG/L)
						LINE 15					
NOV 03, 75	1110	2	1.8	--	.0	--	.0	--	--	--	--
						LINE 44					
NOV 03, 75	1010	2	1.5	--	.0	--	.0	--	--	--	--
						LINE 89					
NOV 03, 75	1305	2	1.5	--	.0	--	.0	--	--	--	--
						LINE 115					
NOV 03, 75	1415	5	1.2	--	.0	--	.0	--	--	--	--
						LINE 141					
NOV 03, 75	1520	2	3.4	--	.0	--	.0	--	--	--	--

TABLE 8E--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 15					
NOV 03, 75	1110	2	.3	--	--	.00	--	.00	--	.00	--
			1.8	--	.0	--	--	--	--	--	--
						LINE 44					
NOV 03, 75	1010	2	.3	--	--	.03	--	.01	--	.00	--
			1.5	--	.0	--	--	--	--	--	--
						LINE 54					
NOV 03, 75	0925	1	.3	--	--	.00	--	.00	--	.00	--
						LINE 77					
NOV 03, 75	1155	2	.3	--	--	.00	--	.00	--	.00	--
						LINE 89					
NOV 03, 75	1305	2	.3	--	--	.00	--	.00	--	.00	--
			1.5	--	.0	--	--	--	--	--	--
						LINE 115					
NOV 03, 75	1415	5	.3	--	--	.00	--	.00	--	.00	--
			1.2	--	.0	--	--	--	--	--	--
						LINE 141					
NOV 03, 75	1520	2	.3	--	--	.00	--	.00	--	.00	--
			3.4	--	.0	--	--	--	--	--	--

TABLE 8E--QUALITY OF WATER IN THE MISSION-ARANSAS ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION (UG/KG)
						LINE 15					
NOV 03, 75	1110	2	1.8	--	0.	--	.0	--	.0	--	--
						LINE 44					
NOV 03, 75	1010	2	1.5	--	0.	--	.0	--	.0	--	--
						LINE 54					
NOV 03, 75	0925	1	2.4	--	--	--	.0	--	.0	--	--
						LINE 77					
NOV 03, 75	1155	2	3.0	--	--	--	.0	--	.0	--	--
						LINE 89					
NOV 03, 75	1305	2	1.5	--	0.	--	.0	--	.0	--	--
						LINE 115					
NOV 03, 75	1415	5	1.2	--	0.	--	.0	--	.0	--	--
						LINE 141					
NOV 03, 75	1520	2	3.4	--	0.	--	.0	--	.0	--	--

Nueces Estuary

The Nueces estuary, which has an area of about 200 square miles (518 km^2), consists of the tidal parts of the Nueces River and other tributaries, Nueces Bay, Tule Lake Channel, Corpus Christi Bay, part of Redfish Bay, Corpus Christi Ship Channel, Aransas Pass, and part of the Intracoastal Waterway (Figure 10). Water depth at mean low water is less than 13 feet (4.0 m) in Corpus Christi Bay; less than 3 feet (1.0 m) in Nueces Bay; more than 40 feet (12.2 m) in Aransas Pass, Corpus Christi Ship Channel, and Tule Lake Channel; and about 15 feet (4.6 m) in the Intracoastal Waterway. A part of Redfish Bay is about 10 feet (3.0 m) deep, but about one-fourth of it is only 1 foot (0.3 m) deep at mean low water.

Water-quality data (Table 9) were collected during October 1975 and February, April, June, and August 1976.

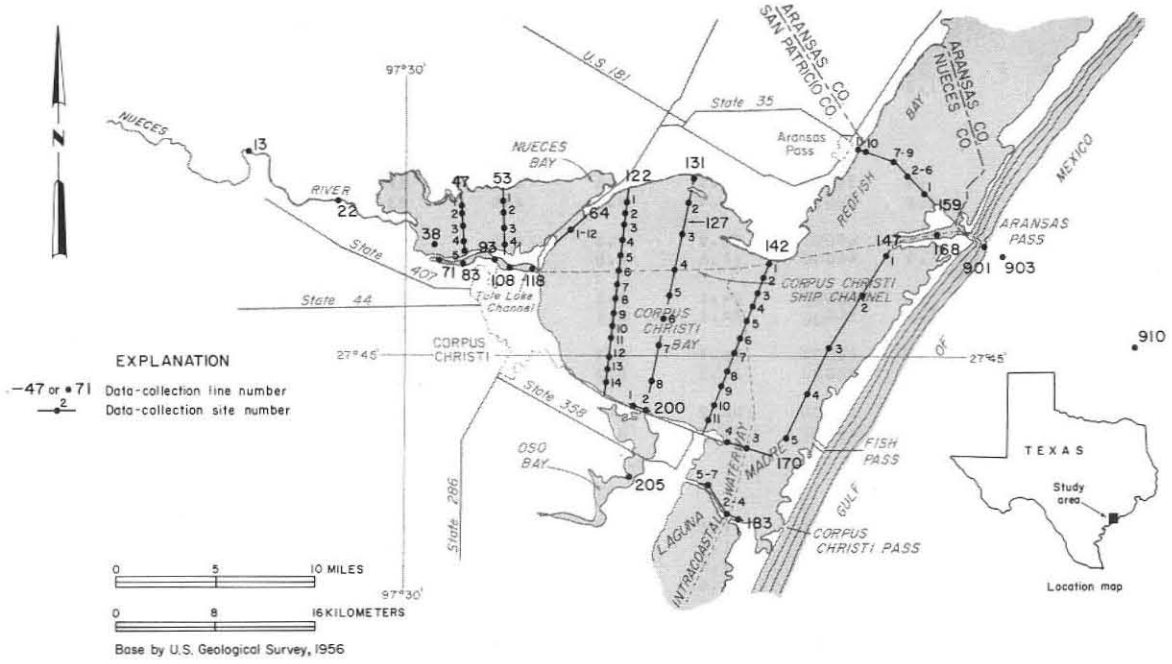

Figure 10.—Data-Collection Sites in the Nueces Estuary

TABLE 9A--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	STATE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 38					
OCT 30, 75	1040	2	.3	4200	21.9	8.6	7.7	88	--	24
			.9	4200	21.7	8.7	7.8	89	75.	--
APR 20, 76	1230	2	.3	49000	25.1	8.6	10.4	153	90.	21
			1.2	49000	25.0	8.5	8.3	122	140.	--
JUN 08, 76	1225	2	.3	1500	26.5	8.5	7.4	94	45.	--
			1.2	1500	26.5	8.6	7.4	94	40.	--
AUG 30, 76	1145	2	.3	1400	26.9	7.8	6.3	81	--	43
			1.2	1400	26.9	8.1	6.0	77	--	--
					LINE 53					
OCT 30, 75	1005	2	.3	35000	21.5	8.5	6.8	87	50.	50
			1.2	36000	21.4	8.4	6.5	83	15.	--
FEB 12, 76	1000	2	.3	48000	18.9	8.1	6.2	79	--	21
			.9	48000	18.8	8.0	6.1	78	--	--
APR 20, 76	1205	2	.3	50000	24.1	8.1	6.4	91	65.	31
			1.5	50000	24.1	8.1	6.3	90	65.	--
JUN 08, 76	1110	2	.3	21000	26.7	8.3	6.5	89	10.	--
			1.5	28000	27.1	8.2	4.7	66	100.	--
AUG 30, 76	1115	2	.3	23000	26.2	8.5	6.4	86	--	56
			1.2	24000	26.3	8.5	6.2	86	--	--
					LINE 64					
OCT 30, 75	1115	9	.3	43000	21.8	8.4	6.4	85	5.	71
			1.5	45000	21.8	8.4	6.2	84	5.	--
			3.0	45000	21.8	8.4	5.8	78	5.	--
			5.8	45000	21.8	8.3	5.7	77	30.	--
FEB 12, 76	0945	9	.3	48000	17.9	8.0	6.6	84	23.	48
			2.1	48000	17.9	8.0	6.4	81	--	--
			4.6	48000	18.0	8.0	6.4	81	--	--
			7.0	48000	17.9	8.0	6.4	81	--	--
APR 20, 76	1130	9	.3	48000	24.1	8.2	6.4	90	50.	33
			1.5	48000	24.0	8.2	6.4	90	50.	--
			3.0	48000	24.0	8.2	6.3	89	55.	--
			5.5	50000	23.6	8.2	5.9	84	95.	--
JUN 08, 76	1050	9	.3	43000	27.7	8.3	5.9	91	15.	--
			3.0	43000	27.8	8.3	6.0	92	20.	--
			6.1	43000	27.7	8.4	5.7	88	10.	--
AUG 30, 76	1100	9	.3	39000	27.4	8.4	5.2	77	--	52
			1.5	39000	27.7	8.4	5.1	76	--	--
			3.0	40000	27.9	8.4	4.8	73	--	--
			6.4	40000	27.9	8.3	4.1	63	--	--
					LINE 108					
OCT 30, 75	1415	2	.3	36000	24.7	8.2	6.3	85	0.	121
			3.0	38000	24.0	8.2	6.1	82	0.	--
			6.1	39000	23.7	8.2	4.6	62	5.	--
			9.1	45000	23.5	8.2	4.2	58	5.	--
			12.2	45000	23.6	8.2	3.3	46	5.	--
					LINE 118					
FEB 12, 76	0915	2	.3	48000	16.6	8.1	6.8	84	22.	190

TABLE 9A--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 118 CONTINUED						
FEB 12, 76	0915	2	3.0	48000	16.5	8.1	6.7	83	--	--
			9.1	48000	16.4	8.1	6.4	79	--	--
			12.5	48000	16.4	8.1	6.2	77	21.	--
APR 20, 76	1300	2	.3	50000	24.5	8.2	6.8	99	--	69
			1.5	50000	24.5	8.2	6.4	93	--	--
			4.6	50000	24.0	8.2	5.6	80	--	--
			9.1	50000	23.9	8.2	5.6	80	--	--
			13.7	50000	23.9	8.2	5.6	80	--	--
JUN 08, 76	1015	2	.3	39000	28.0	8.3	5.4	82	5.	--
			3.0	39000	28.0	8.3	4.7	71	5.	--
			6.1	43000	28.0	8.2	3.7	56	5.	--
			9.1	47000	27.8	8.2	3.4	54	10.	--
			13.4	47000	27.6	8.0	1.9	29	70.	--
AUG 30, 76	1040	2	.3	42000	28.2	8.3	4.9	76	--	102
			1.5	42000	28.2	8.3	3.8	58	--	--
			4.6	45000	28.1	8.3	2.4	37	0.	--
			7.6	47000	28.1	8.3	2.5	40	20.	--
			11.6	49000	28.1	8.2	1.9	31	60.	--
				LINE 127						
OCT 30, 75	1140	2	.3	44000	22.2	8.4	6.2	84	5.	125
			1.5	45000	22.1	8.4	6.1	82	10.	--
			3.4	45000	22.0	8.4	6.0	81	10.	--
FEB 12, 76	0935	2	.3	47000	16.7	8.4	8.1	100	0.	162
			1.5	47000	16.7	8.4	8.1	100	10.	--
			3.0	47000	16.7	8.4	8.0	99	0.	--
APR 21, 76	1250	2	.3	49000	24.7	8.6	8.2	119	0.	80
			1.5	49000	24.3	8.6	8.1	116	15.	--
			3.4	49000	24.3	8.6	7.7	110	15.	--
JUN 08, 76	1140	2	.3	46000	28.1	8.2	6.3	99	20.	94
			1.8	46000	28.2	8.5	5.4	85	20.	--
AUG 31, 76	0945	2	.3	48000	27.2	8.5	5.2	81	--	88
			1.5	48000	27.2	8.5	5.1	80	--	--
			2.7	48000	27.1	8.4	4.4	68	--	--
OCT 30, 75	1330	6	.3	40000	23.8	8.4	7.3	100	5.	177
			1.5	45000	23.3	8.4	6.9	95	5.	--
			4.0	45000	23.2	8.4	6.8	93	0.	--
FEB 12, 76	0950	6	.3	47000	16.7	8.4	8.2	101	--	191
			1.5	47000	16.7	8.4	8.1	100	10.	--
			4.0	47000	16.7	8.4	7.8	96	0.	--
APR 21, 76	1230	6	.3	49000	24.5	8.6	7.6	110	0.	103
			1.8	49000	24.4	8.6	7.3	106	20.	--
			4.0	49000	24.4	8.6	7.1	103	70.	--
JUN 08, 76	1245	6	.3	46000	28.2	8.1	7.8	122	15.	60
			1.5	46000	28.2	8.1	6.8	106	30.	--
			4.0	46000	28.2	8.1	6.8	106	40.	--
AUG 31, 76	1000	6	.3	42000	27.1	8.5	6.2	95	--	120
			1.8	45000	27.2	8.5	6.1	94	--	--
			4.0	47000	27.3	8.5	5.7	90	--	--
				LINE 142						
OCT 30, 75	1205	1	.3	44000	22.9	8.5	6.9	95	0.	115
			3.0	45000	22.7	8.4	6.7	92	0.	--

TABLE 9A--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 142 CONTINUED						
OCT 30, 75	1205	1	6.1	45000	22.7	8.5	6.5	89	0.	--
			9.1	45000	22.6	8.4	6.3	86	0.	--
			12.2	45000	22.6	8.4	5.9	81	5.	--
			14.6	45000	22.6	8.4	5.4	74	5.	--
FEB 12, 76	1135	1	.3	48000	17.6	8.4	8.9	111	0.	182
			3.0	48000	17.4	8.4	8.0	100	0.	--
			6.1	48000	17.3	8.4	8.1	101	0.	--
			9.1	50000	17.4	8.4	8.3	105	0.	--
			13.7	50000	17.4	8.3	7.6	96	0.	--
APR 21, 76	1340	1	.3	49000	24.7	8.6	7.4	107	0.	49
			1.5	49000	24.5	8.6	7.3	106	0.	--
			4.6	49000	24.1	8.6	7.2	103	0.	--
			9.1	49000	24.1	8.6	6.9	99	40.	--
			15.2	49000	24.1	8.6	6.5	93	70.	--
JUN 08, 76	1205	1	.3	45000	27.5	8.0	7.0	109	15.	59
			3.0	46000	27.9	8.0	6.6	103	15.	--
			6.1	46000	27.5	7.9	6.4	100	20.	--
			9.1	46000	27.5	7.9	6.2	97	20.	--
			13.7	46000	27.8	7.9	5.9	92	50.	--
AUG 31, 76	0930	1	.3	47000	27.2	8.4	5.9	91	--	124
			1.5	47000	27.3	8.4	5.8	91	--	--
			4.6	48000	27.8	8.4	5.5	87	--	--
			9.1	49000	27.9	8.3	5.6	88	--	--
			14.0	49000	27.9	8.3	5.3	85	--	--
OCT 30, 75	1230	6	.3	45000	22.7	8.5	7.5	103	0.	213
			1.5	45000	22.6	8.5	7.5	103	5.	--
			4.0	45000	22.7	8.5	6.7	92	5.	--
FEB 12, 76	1015	6	.3	48000	17.1	8.4	8.1	101	0.	200
			1.5	48000	16.9	8.4	7.8	98	0.	--
			3.7	48000	16.6	8.4	7.6	94	0.	--
APR 21, 76	1155	6	.3	51000	24.7	8.6	7.2	104	10.	130
			1.8	51000	24.7	8.6	6.8	99	20.	--
			4.0	51000	24.3	8.6	6.3	90	20.	--
JUN 08, 76	1230	6	.3	48000	28.0	8.0	7.1	113	20.	60
			1.5	48000	28.0	8.0	7.0	112	20.	--
			4.0	48000	28.0	8.0	6.8	108	25.	--
AUG 31, 76	1030	6	.3	47000	27.2	8.4	5.6	86	--	130
			1.8	47000	27.2	8.4	5.5	85	--	--
			4.0	48000	27.2	8.3	3.7	58	--	--
				LINE 147						
OCT 31, 75	0840	2	.3	44000	23.6	8.3	6.8	94	0.	157
			1.5	44000	23.6	8.4	6.7	93	0.	--
			3.4	44000	23.6	8.3	6.3	88	5.	--
FEB 12, 76	1120	2	.3	48000	17.3	8.4	9.0	112	0.	192
			1.5	48000	17.2	8.4	8.3	104	10.	--
			3.0	48000	17.3	8.4	8.1	101	10.	--
APR 21, 76	0945	2	.3	47000	24.2	8.6	7.1	100	0.	96
			1.5	47000	24.2	8.6	7.0	99	20.	--
			2.7	47000	24.5	8.6	6.7	96	60.	--
JUN 08, 76	1500	2	.3	49000	27.2	8.1	9.0	140	10.	81
			1.5	49000	27.2	8.1	8.5	133	10.	--
			3.7	49000	27.2	8.0	7.3	114	10.	--
AUG 31, 76	1105	2	.3	48000	27.0	8.4	5.8	90	--	134

TABLE 9A--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 147 CONTINUED					
AUG 31, 76	1105	2	1.2	50000	27.0	8.4	5.8	90	--	--
			2.1	53000	27.2	8.3	4.9	77	--	--
OCT 31, 75	0825	3	.3	44000	23.4	8.3	6.3	88	20.	144
			1.5	44000	23.3	8.3	6.4	88	60.	--
			3.0	44000	23.3	8.2	6.2	85	10.	--
FEB 12, 76	1105	3	.3	47000	17.3	8.4	8.1	101	0.	195
			2.7	47000	17.2	8.4	8.0	100	5.	--
APR 21, 76	1000	3	.3	48000	24.1	8.6	7.3	103	20.	92
			1.5	48000	24.1	8.6	7.2	101	25.	--
			3.0	48000	24.1	8.6	7.1	100	20.	--
JUN 08, 76	1445	3	.3	49000	27.7	8.0	8.6	135	20.	63
			1.5	49000	27.5	8.0	7.5	117	20.	--
			3.4	49000	27.5	8.0	7.5	117	20.	--
AUG 31, 76	1050	3	.3	48000	27.4	8.3	4.9	77	--	86
			1.5	48000	27.3	8.3	4.8	76	--	--
			3.4	50000	27.6	8.3	3.3	53	--	--
					LINE 159					
OCT 31, 75	0950	8	.3	36000	24.3	--	6.8	91	0.	130
			1.5	41000	24.3	--	6.2	85	0.	--
			3.0	41000	24.4	--	5.4	74	0.	--
			4.9	44000	24.5	--	5.1	73	10.	--
FEB 12, 76	1325	8	.3	50000	19.5	8.3	8.4	112	30.	76
			1.5	50000	19.6	8.3	6.6	88	50.	--
			4.3	48000	19.9	8.3	6.9	91	30.	--
APR 21, 76	1425	8	.3	42000	25.3	8.6	7.9	111	10.	76
			1.8	42000	25.1	8.6	7.5	106	10.	--
			4.0	44000	25.3	8.6	7.9	113	40.	--
JUN 08, 76	1615	8	.3	35000	28.0	8.3	8.7	126	30.	90
			3.0	40000	27.9	8.1	7.9	119	40.	--
			5.5	44000	27.5	8.0	7.1	109	180.	--
AUG 31, 76	1140	8	.3	51000	27.0	8.2	4.9	77	--	106
			1.5	53000	27.0	8.2	4.7	75	--	--
			2.7	53000	27.1	8.2	4.6	73	--	--
			5.2	53000	27.1	8.2	5.3	84	--	--
OCT 31, 75	1010	10	.3	36000	24.4	8.5	7.9	105	0.	147
			1.5	39000	24.5	8.4	7.3	99	0.	--
			3.0	40000	24.6	8.3	7.3	101	10.	--
			4.6	40000	24.8	8.5	5.5	76	10.	--
FEB 12, 76	1335	10	.3	47000	20.2	8.3	6.6	87	0.	86
			1.5	47000	20.0	8.3	5.4	71	10.	--
			4.0	47000	20.1	8.3	6.9	91	40.	--
APR 21, 76	1435	10	.3	44000	25.3	8.6	8.5	121	20.	65
			2.1	44000	25.3	8.6	7.7	110	10.	--
			4.3	42000	25.1	8.6	7.2	101	30.	--
JUN 08, 76	1625	10	.3	32000	28.1	8.5	8.5	124	30.	103
			3.0	32000	27.9	8.5	8.5	124	30.	--
			4.6	43000	27.5	8.1	6.3	97	30.	--
AUG 31, 76	1145	10	.3	48000	27.1	8.3	5.1	80	--	98
			1.5	48000	27.1	8.3	4.8	75	--	--
			3.0	48000	27.1	8.3	4.6	72	--	98
			4.6	53000	27.0	8.3	4.3	68	--	--
					LINE 168					
OCT 31, 75	0915	2	.3	44000	24.0	8.3	6.3	89	0.	153

TABLE 9A--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 168 CONTINUED					
OCT 31, 75	0915	2	3.0	44000	24.1	8.3	6.4	90	0.	--
			6.1	44000	24.1	8.3	6.4	90	5.	--
			9.1	44000	24.2	8.3	6.4	90	5.	--
			12.2	44000	24.1	8.3	6.3	89	5.	--
			15.2	44000	24.1	8.3	6.0	85	5.	--
FEB 12, 76	1215	2	.3	50000	18.0	8.3	9.1	116	0.	135
			3.0	50000	17.9	8.3	9.3	119	0.	--
			6.1	50000	17.9	8.4	9.2	118	0.	--
			9.1	50000	17.9	8.4	9.2	118	5.	--
			13.7	50000	17.9	8.4	8.5	109	5.	--
APR 21, 76	0920	2	.3	47000	24.1	8.6	6.3	89	20.	47
			1.5	47000	24.0	8.5	6.4	90	15.	--
			4.6	47000	24.0	8.5	6.5	92	15.	--
			9.1	47000	24.0	8.5	6.5	92	25.	--
			15.2	47000	24.1	8.5	6.5	92	30.	--
JUN 08, 76	1530	2	.3	48000	27.5	7.9	9.0	141	20.	69
			3.0	48000	27.2	7.9	8.4	132	20.	--
			6.1	48000	27.2	7.9	7.8	122	20.	--
			9.1	48000	27.2	7.9	7.9	124	20.	--
			15.2	46000	26.0	7.9	9.8	149	40.	--
AUG 31, 76	1120	2	.3	53000	26.9	8.3	5.5	87	--	145
			1.5	53000	27.0	8.3	5.5	87	--	--
			4.6	55000	27.2	8.2	5.0	81	--	--
			9.1	55000	27.2	8.2	5.2	84	--	--
			14.0	55000	27.4	8.2	5.0	82	--	--
					LINE 183					
OCT 30, 75	1440	3	.3	46000	23.6	8.5	7.9	110	15.	138
			1.5	46000	23.4	8.4	7.6	106	15.	--
			3.0	46000	23.4	8.4	7.3	101	15.	--
			4.6	46000	23.4	8.4	6.6	92	50.	--
			6.4	46000	24.8	9.0	6.2	89	50.	--
APR 21, 76	1040	3	.3	57000	24.9	8.5	4.9	75	0.	116
			1.2	57000	24.7	8.5	4.9	74	20.	--
			2.4	57000	24.7	8.5	4.9	74	20.	--
			4.9	56000	24.7	8.5	4.7	70	10.	--
JUN 08, 76	1410	3	.3	50000	28.2	8.1	7.8	126	10.	83
			1.5	50000	28.2	8.0	7.4	119	10.	--
			3.0	50000	28.2	8.1	7.6	122	10.	--
			6.1	50000	28.5	8.3	8.0	129	10.	--
OCT 30, 75	1500	6	.3	45000	23.7	8.6	7.3	101	340.	77
			2.1	44000	24.3	9.0	6.9	97	400.	--
APR 21, 76	1120	6	.3	60000	25.1	8.5	5.6	86	0.	170
			1.2	60000	24.9	8.5	5.1	78	0.	--
			2.1	57000	25.2	8.5	4.9	75	10.	--
JUN 08, 76	1355	6	.3	49000	28.9	8.1	9.9	159	10.	96
			1.8	49000	28.6	8.1	8.4	134	20.	--
					LINE 200					
OCT 30, 75	1305	2	.3	40000	23.3	8.3	8.1	109	5.	42
			1.5	45000	22.8	8.4	6.4	88	10.	--
			3.0	45000	22.9	8.4	3.3	45	20.	--
FEB 12, 76	1035	2	.3	48000	18.8	8.4	7.6	97	0.	109
			1.5	48000	18.8	8.4	7.5	96	20.	--
APR 21, 76	1210	2	.3	49000	24.7	8.6	8.0	116	40.	84

TABLE 9A--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 200 CONTINUED						
APR 21, 76	1210	2	1.8	49000	24.7	8.6	7.9	114	0.	--
JUN 08, 76	1300	2	.3	49000	28.0	8.1	6.3	100	20.	69
			1.5	49000	28.0	8.1	7.1	113	20.	--
AUG 31, 76	1015	2	.3	47000	27.1	8.4	5.1	78	--	82
			1.2	48000	26.5	8.4	4.1	63	--	--
				LINE 903						
FEB 12, 76	1250	70	.6	52000	18.2	8.4	8.1	105	10.	124
			3.0	52000	18.0	8.4	8.1	105	10.	--
			6.1	52000	17.8	8.4	8.2	106	20.	--
			9.1	52000	17.5	8.4	8.2	106	30.	--
			12.2	52000	17.4	8.4	8.9	114	30.	--

TABLE 9B--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 38						
OCT 30, 75	1040	2	.3	20.0	.03	.05	.01	--	.27	3.7	--	9.6
APR 20, 76	1230	2	.3	8.1	.00	.42	.01	--	.55	8.7	--	--
JUN 08, 76	1225	2	.3	18.0	.00	.02	.00	--	.14	3.2	--	7.0
AUG 30, 76	1145	2	.3	22.0	.01	.07	.00	--	.17	1.8	--	3.8
						LINE 53						
OCT 30, 75	1005	2	.3	7.9	.01	.08	.00	--	.12	4.6	--	9.2
FEB 12, 76	1000	2	.3	2.1	.03	.09	.04	--	.11	2.5	--	--
APR 20, 76	1205	2	.3	3.7	.07	.30	.07	--	.09	1.2	--	--
JUN 08, 76	1110	2	.3	10.0	.00	.08	.00	--	.08	2.4	--	8.8
AUG 30, 76	1115	2	.3	12.0	.00	.01	.00	--	.11	1.1	--	3.8
						LINE 64						
OCT 30, 75	1115	9	.3	3.6	.01	.07	.00	--	.08	2.0	--	8.2
FEB 12, 76	0945	9	.3	1.4	.03	.11	.01	--	.08	2.2	--	--
APR 20, 76	1130	9	.3	2.0	.04	.24	.05	--	.07	.8	--	--
JUN 08, 76	1050	9	.3	3.4	.00	.17	.00	--	.05	1.9	--	6.2
AUG 30, 76	1100	9	.3	5.2	.00	.05	.01	--	.11	1.6	--	8.0
						LINE 108						
OCT 30, 75	1415	2	.3	3.9	.19	.42	.01	--	.29	3.4	--	10.0
			12.2	--	.01	.18	.00	--	.10	1.0	--	7.0
						LINE 118						
FEB 12, 76	0915	2	.3	.9	.03	.17	.01	--	.09	1.8	--	--
			12.5	--	.01	.10	.00	--	.09	2.1	--	--
APR 20, 76	1300	2	.3	.8	.07	.33	.03	--	.14	1.6	--	--
			13.7	--	.00	.42	.06	--	.55	3.6	--	--
JUN 08, 76	1015	2	.3	3.6	.00	.00	.01	--	.06	1.5	--	6.4
			13.4	3.5	.00	.22	.01	--	.09	1.5	--	8.0
AUG 30, 76	1040	2	.3	4.5	.01	.06	.01	--	.11	2.1	--	3.4
			11.6	--	.00	.38	.01	--	.35	2.4	--	3.0
						LINE 127						
OCT 30, 75	1140	2	.3	--	--	--	--	--	--	1.3	--	--
			3.4	--	.00	.06	.01	--	.06	--	--	3.2
FEB 12, 76	0935	2	.3	--	.01	.08	.00	--	.05	1.2	--	--
			3.0	--	.00	.07	.00	--	.05	--	--	--
APR 21, 76	1250	2	.3	--	.00	.14	.00	--	.04	1.6	--	--
			3.4	--	.00	.12	.01	--	.05	--	--	--

TABLE 9B--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N_H) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
					LINE 127 CONTINUED							
JUN 08, 76	1140	2	.3	--	.00	.11	.00	--	.01	1.5	--	--
			1.8	2.5	.00	.11	.01	--	.03	--	--	--
AUG 31, 76	0945	2	.3	--	.01	.05	.00	--	.06	.7	--	4.8
			2.7	--	.01	.04	.00	--	.08	--	--	--
OCT 30, 75	1330	6	.3	--	.01	.06	.00	--	.06	1.5	--	4.6
			4.0	--	.01	.06	.00	--	.08	--	--	--
FEB 12, 76	0950	6	.3	.9	.00	.10	.00	--	.05	.7	--	--
			4.0	--	.00	.08	.00	--	.05	--	--	--
APR 21, 76	1230	6	.3	.8	.00	.13	.01	--	.03	.9	--	8.2
			4.0	--	.00	.16	.01	--	.07	--	--	--
JUN 08, 76	1245	6	.3	--	.00	.11	.00	--	.04	1.2	--	5.8
			4.0	--	.00	.11	.01	--	.06	--	--	--
AUG 31, 76	1000	6	.3	3.2	.01	.03	.00	--	.05	.5	--	3.2
			4.0	--	.01	.04	.00	--	.08	--	--	--
					LINE 142							
OCT 30, 75	1205	1	.3	--	.01	.07	.00	--	.05	1.0	--	--
			14.6	--	.01	.08	.00	--	.08	.9	--	--
FEB 12, 76	1135	1	.3	--	.00	.08	.00	--	.04	1.0	--	--
			13.7	--	.00	.10	.00	--	.05	.8	--	--
APR 21, 76	1340	1	.3	--	.00	.12	.01	--	.04	1.6	--	--
			15.2	--	.00	.20	.01	--	.08	1.1	--	--
JUN 08, 76	1205	1	.3	--	.00	.21	.01	--	.04	1.2	--	--
			13.7	--	.00	.14	.01	--	.03	1.1	--	--
AUG 31, 76	0930	1	.3	--	.01	.04	.00	--	.05	.5	--	2.8
			14.0	--	.01	.09	.00	--	.30	2.3	--	11.0
OCT 30, 75	1230	6	.3	--	.01	.07	.00	--	.07	1.8	--	--
			4.0	--	.01	.09	.00	--	.07	1.9	--	--
FEB 12, 76	1015	6	.3	--	.00	.07	.00	--	.05	.9	--	--
			3.7	--	.00	.08	.00	--	.05	1.4	--	--
APR 21, 76	1155	6	.3	--	.00	.14	.01	--	.03	.9	--	--
			4.0	--	.00	.16	.01	--	.06	1.4	--	--
JUN 08, 76	1230	6	.3	--	--	--	--	--	--	1.5	--	--
			4.0	--	.00	.01	.01	--	.03	1.7	--	--
AUG 31, 76	1030	6	.3	3.7	.01	.03	.00	--	.06	.8	--	3.4
			4.0	--	.01	.06	.00	--	.10	1.8	--	--
					LINE 147							
OCT 31, 75	0840	2	.3	--	.00	.05	.01	--	.05	--	--	3.6
			3.4	--	.00	.05	.01	--	.07	--	--	--
FEB 12, 76	1120	2	.3	--	.00	.06	.00	--	.04	--	--	--
			3.0	--	.00	.07	.00	--	.05	--	--	--
APR 21, 76	0945	2	.3	--	.00	.14	.00	--	.03	1.0	--	--
			2.7	--	.02	.14	.01	--	.03	--	--	--
JUN 08, 76	1500	2	.3	--	.00	.00	.01	--	.03	--	--	--
			3.7	--	.00	.03	.01	--	.05	--	--	9.4
AUG 31, 76	1105	2	.3	--	.01	.04	.00	--	.05	--	--	4.8

TABLE 98--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 147 CONTINUED						
AUG 31, 76	1105	2	2.1	--	.00	.05	.01	--	.07	--	--	--
OCT 31, 75	0825	3	.3	1.6	.00	.05	.01	--	.05	1.0	--	4.2
			3.0	--	.00	.05	.00	--	.07	--	--	--
FEB 12, 76	1105	3	.3	.9	.00	.10	.00	--	.05	1.4	--	--
			2.7	--	.00	.07	.00	--	.05	--	--	--
APR 21, 76	1000	3	.3	.6	.00	.14	.01	--	.04	1.2	--	--
			3.0	--	.00	.10	.01	--	.05	--	--	--
JUN 08, 76	1445	3	.3	2.5	.00	.11	.01	--	.04	2.3	--	6.2
			3.4	--	.00	.11	.01	--	.06	--	--	--
AUG 31, 76	1050	3	.3	4.3	.01	.04	.00	--	.07	.6	--	4.4
			3.4	--	.01	.04	.00	--	.07	--	--	--
						LINE 159						
OCT 31, 75	1010	10	.3	1.6	.00	.02	.01	--	.05	1.2	--	3.8
			4.6	--	.01	.07	.00	--	.07	--	--	--
FEB 12, 76	1335	10	.3	2.1	.00	.06	.00	--	.05	1.7	--	--
			4.0	.9	.00	.09	.00	--	.07	--	--	--
APR 21, 76	1435	10	.3	1.4	.00	.10	.01	--	.05	1.9	--	--
			4.3	--	.00	.10	.01	--	.05	--	--	--
JUN 08, 76	1625	10	.3	3.8	.00	.05	.00	--	.03	1.8	--	10.0
			4.6	--	.00	.04	.01	--	.03	--	--	--
AUG 31, 76	1145	10	.3	2.5	.01	.04	.00	--	.05	1.0	--	3.4
			4.6	--	.01	.07	.00	--	.09	--	--	--
						LINE 183						
OCT 30, 75	1440	3	.3	--	.00	.05	.00	--	.07	1.5	--	--
APR 21, 76	1040	3	.3	--	.00	.21	.01	--	.04	1.1	--	--
JUN 08, 76	1410	3	.3	--	.00	.11	.01	--	.04	1.6	--	--
						LINE 200						
OCT 30, 75	1305	2	.3	3.9	.11	.22	.04	--	.24	3.1	--	7.9
			3.0	--	.00	.06	.01	--	.08	1.5	--	4.0
FEB 12, 76	1035	2	.3	--	.00	.08	.00	--	.06	1.7	--	--
			1.5	--	.00	.08	.00	--	.06	1.9	--	--
APR 21, 76	1210	2	.3	.5	.00	.14	.01	--	.06	1.5	--	--
			1.8	--	.00	.15	.01	--	.11	2.3	--	--
JUN 08, 76	1300	2	.3	2.5	.00	.19	.01	--	.04	1.4	--	--
			1.5	--	.00	.09	.00	--	.06	1.1	--	--
AUG 31, 76	1015	2	.3	4.0	.01	.04	.00	--	.06	1.2	--	6.0
			1.2	--	.08	.59	.01	--	.14	1.4	--	6.8
						LINE 903						
FEB 12, 76	1250	70	.6	.6	.00	.07	.00	--	.04	1.0	--	--
			12.2	--	.01	.10	.00	--	.05	1.2	--	--

TABLE 9C--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 38					
OCT 30, 75	1040	2	.3	4190	140.0	58.0	--	188	170	1100	2200
APR 20, 76	1230	2	.3	43200	310.0	910.0	--	172	1900	15000	26500
JUN 08, 76	1225	2	.3	1520	87.0	20.0	--	191	92	350	872
AUG 30, 76	1145	2	.3	1390	76.0	16.0	--	174	77	290	739
						LINE 53					
OCT 30, 75	1005	2	.3	35900	350.0	820.0	--	160	1700	12000	22000
FEB 12, 76	1000	2	.3	47600	550.0	1100.0	--	165	2300	17000	30900
APR 20, 76	1205	2	.3	49900	470.0	1100.0	--	144	2500	20000	35500
JUN 08, 76	1110	2	.3	22600	250.0	460.0	--	160	990	8100	14300
AUG 30, 76	1115	2	.3	24600	260.0	530.0	--	162	1100	8200	14900
						LINE 64					
OCT 30, 75	1115	9	.3	42600	400.0	990.0	--	160	2100	14000	25600
FEB 12, 76	0945	9	.3	48200	470.0	1200.0	--	165	2400	17000	31100
APR 20, 76	1130	9	.3	47900	420.0	1100.0	--	152	2500	17000	31500
JUN 08, 76	1050	9	.3	42800	370.0	1000.0	--	159	2200	16000	28600
AUG 30, 76	1100	9	.3	40200	350.0	900.0	--	152	1900	14000	25300
						LINE 108					
OCT 30, 75	1415	2	.3	41600	390.0	990.0	--	172	2000	14000	25800
			12.2	44400	--	--	--	--	--	--	--
						LINE 118					
FEB 12, 76	0915	2	.3	47300	420.0	1100.0	--	176	2300	17000	30800
			12.5	48100	--	--	--	--	--	--	--
APR 20, 76	1300	2	.3	48900	400.0	1100.0	--	174	2600	17000	31600
			13.7	49900	--	--	--	--	--	--	--
JUN 08, 76	1015	2	.3	41900	360.0	960.0	--	159	1900	15000	26800
			13.4	45100	380.0	1100.0	--	160	2500	17000	30600
AUG 30, 76	1040	2	.3	42600	360.0	980.0	--	156	2000	15000	27100
			11.6	49900	--	--	--	--	--	--	--
						LINE 127					
OCT 30, 75	1140	2	.3	44100	--	--	--	--	--	--	--
FEB 12, 76	0935	2	.3	46800	--	--	--	--	--	--	--
APR 21, 76	1250	2	.3	49100	--	--	--	--	--	--	--
JUN 08, 76	1140	2	.3	45700	--	--	--	--	--	--	--
			1.8	47800	400.0	1100.0	--	163	2600	18000	32100

TABLE 9C--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 127 CONTINUED						
AUG 31, 76	0945	2	.3	45800	--	--	--	--	--	--	--
OCT 30, 75	1330	6	.3	45500	--	--	--	--	--	--	--
FEB 12, 76	0950	6	.3	47900	410.0	1100.0	--	175	2300	17000	31200
APR 21, 76	1230	6	.3	49300	400.0	1200.0	--	167	2300	20000	35300
JUN 08, 76	1245	6	.3	47500	--	--	--	--	--	--	--
AUG 31, 76	1000	6	.3	45000	370.0	1000.0	--	154	2200	16000	28600
					LINE 142						
OCT 30, 75	1205	1	.3	43900	--	--	--	--	--	--	--
			14.6	45100	--	--	--	--	--	--	--
FEB 12, 76	1135	1	.3	48300	--	--	--	--	--	--	--
			13.7	48500	--	--	--	--	--	--	--
APR 21, 76	1340	1	.3	46800	--	--	--	--	--	--	--
			15.2	48500	--	--	--	--	--	--	--
JUN 08, 76	1205	1	.3	46700	--	--	--	--	--	--	--
			13.7	44700	--	--	--	--	--	--	--
AUG 31, 76	0930	1	.3	49800	--	--	--	--	--	--	--
			14.0	53500	--	--	--	--	--	--	--
OCT 30, 75	1230	6	.3	44700	--	--	--	--	--	--	--
			4.0	45400	--	--	--	--	--	--	--
FEB 12, 76	1015	6	.3	47900	--	--	--	--	--	--	--
			3.7	48300	--	--	--	--	--	--	--
APR 21, 76	1155	6	.3	50000	--	--	--	--	--	--	--
			4.0	50000	--	--	--	--	--	--	--
JUN 08, 76	1230	6	.3	46700	--	--	--	--	--	--	--
			4.0	47000	--	--	--	--	--	--	--
AUG 31, 76	1030	6	.3	46400	380.0	1100.0	--	153	2200	16000	28900
			4.0	48800	--	--	--	--	--	--	--
					LINE 147						
APR 21, 76	0945	2	.3	48100	--	--	--	--	--	--	--
OCT 31, 75	0825	3	.3	45500	390.0	1100.0	--	170	2300	16000	29100
FEB 12, 76	1105	3	.3	47600	400.0	1100.0	--	168	2400	17000	31000
APR 21, 76	1000	3	.3	47800	380.0	1100.0	--	163	2600	16000	30200
JUN 08, 76	1445	3	.3	47900	400.0	1100.0	--	166	2700	18000	32300
AUG 31, 76	1050	3	.3	46900	400.0	1100.0	--	154	2200	17000	30300
					LINE 159						
OCT 31, 75	1010	10	.3	36400	380.0	830.0	--	176	1700	12000	22300
FEB 12, 76	1335	10	.3	46800	380.0	1100.0	--	182	2400	17000	30800
			4.0	49100	410.0	1200.0	--	182	2500	18000	32500
APR 21, 76	1435	10	.3	43300	330.0	990.0	--	155	2200	15000	27500

TABLE 9C--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 159 CONTINUED						
JUN 08, 76	1625	10	.3	32900	260.0	720.0	--	115	1500	11000	20100
AUG 31, 76	1145	10	.3	47300	380.0	1100.0	--	155	2300	17000	30400
					LINE 183						
OCT 30, 75	1440	3	.3	45600	--	--	--	--	--	--	--
APR 21, 76	1040	3	.3	56600	--	--	--	--	--	--	--
JUN 08, 76	1410	3	.3	47500	--	--	--	--	--	--	--
					LINE 200						
OCT 30, 75	1305	2	.3	39700	350.0	890.0	--	166	1900	13000	24100
			3.0	45200	--	--	--	--	--	--	--
FEB 12, 76	1035	2	.3	49100	--	--	--	--	--	--	--
			1.5	49300	--	--	--	--	--	--	--
APR 21, 76	1210	2	.3	49200	390.0	1100.0	--	167	2400	19000	34300
			1.8	49200	--	--	--	--	--	--	--
JUN 08, 76	1300	2	.3	48000	400.0	1100.0	--	161	2500	18000	32100
			1.5	48400	--	--	--	--	--	--	--
AUG 31, 76	1015	2	.3	44700	390.0	1000.0	--	158	2100	16000	28500
			1.2	47200	--	--	--	--	--	--	--
					LINE 903						
FEB 12, 76	1250	70	.6	51200	410.0	1200.0	--	154	2500	18000	32600
			12.2	52000	--	--	--	--	--	--	--

TABLE 9D--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ALUMI-NUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)
						LINE 38				
OCT 30, 75	1040	2	.3	100	7	--	--	2	--	--
			.9	--	--	--	5	--	--	< 10.00
						LINE 53				
OCT 30, 75	1005	2	.3	50	3	--	--	6	--	--
			1.2	--	--	--	7	--	--	< 10.00
						LINE 108				
OCT 30, 75	1415	2	.3	30	1	--	--	1	--	--
			12.2	--	--	--	5	--	--	< 10.00
						LINE 127				
OCT 30, 75	1140	2	.3	30	1	--	--	2	--	--
			3.4	--	--	--	2	--	--	< 10.00
OCT 30, 75	1330	6	.3	80	1	--	--	1	--	--
			4.0	--	--	--	3	--	--	< 10.00
						LINE 147				
OCT 31, 75	0840	2	.3	50	0	--	--	0	--	--
			3.4	--	--	--	3	--	--	< 10.00

TABLE 9D--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CHRO-MIUM (CR) (UG/L)	TOTAL CHRO-MIUM (CR) (UG/L)	DIS-SOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DIS-SOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 38					
OCT 30, 75	1040	2	.3	.00	--	0	--	--	8	--	--
			.9	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 53					
OCT 30, 75	1005	2	.3	1.00	--	0	--	--	11	--	--
			1.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 108					
OCT 30, 75	1415	2	.3	3.00	--	0	--	--	8	--	--
			12.2	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 127					
OCT 30, 75	1140	2	.3	.00	--	0	--	--	8	--	--
			3.4	--	--	--	--	< 10.00	--	--	< 10.00
OCT 30, 75	1330	6	.3	1.00	--	0	--	--	7	--	--
			4.0	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 147					
OCT 31, 75	0840	2	.3	.00	--	0	--	--	2	--	--
			3.4	--	--	--	--	< 10.00	--	--	< 10.00

TABLE 9D--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (PB) (UG/GM)
						LINE 38					
OCT 30, 75	1040	2	.3	--	--	0	--	--	10	--	--
			.9	--	.0	--	--	--	--	--	< 10.00
						LINE 53					
OCT 30, 75	1005	2	.3	--	--	40	--	--	23	--	--
			1.2	--	.0	--	--	--	--	--	< 10.00
						LINE 108					
OCT 30, 75	1415	2	.3	--	--	50	--	--	6	--	--
			12.2	--	.0	--	--	--	--	--	< 10.00
						LINE 127					
OCT 30, 75	1140	2	.3	--	--	80	--	--	9	--	--
			3.4	--	.0	--	--	--	--	--	< 10.00
OCT 30, 75	1330	6	.3	--	--	90	--	--	10	--	--
			4.0	--	.0	--	--	--	--	--	< 10.00
						LINE 147					
OCT 31, 75	0840	2	.3	--	--	90	--	--	7	--	--
			3.4	--	.0	--	--	--	--	--	< 10.00

TABLE 9D--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITH-IUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	BOTTOM DEPOSIT MAN-GANESE (MN) (UG/GM)	DIS-SOLVED MER-CURY (HG) (UG/L)	TOTAL MER-CURY (HG) (UG/L)	BOTTOM DEPOSIT MER-CURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)
						LINE 38						
OCT 30, 75	1040	2	.3	70	30	--	--	.3	--	--	0	1600
			.9	--	--	--	200	--	--	.4	--	--
						LINE 53						
OCT 30, 75	1005	2	.3	130	50	--	--	.0	--	--	0	3000
			1.2	--	--	--	250	--	--	.6	--	--
						LINE 108						
OCT 30, 75	1415	2	.3	130	30	--	--	.2	--	--	0	3000
			12.2	--	--	--	360	--	--	.6	--	--
						LINE 127						
OCT 30, 75	1140	2	.3	140	100	--	--	.1	--	--	0	3000
			3.4	--	--	--	100	--	--	.2	--	--
OCT 30, 75	1330	6	.3	140	100	--	--	.1	--	--	0	3200
			4.0	--	--	--	300	--	--	.2	--	--
						LINE 147						
OCT 31, 75	0840	2	.3	140	90	--	--	.2	--	--	0	3000
			3.4	--	--	--	220	--	--	.3	--	--

TABLE 9D--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)
						LINE 38
OCT 30, 75	1040	2	.3	20	--	--
			.9	--	--	80.00
						LINE 53
OCT 30, 75	1005	2	.3	60	--	--
			1.2	--	--	150.00
						LINE 108
OCT 30, 75	1415	2	.3	40	--	--
			12.2	--	--	290.00
						LINE 127
OCT 30, 75	1140	2	.3	30	--	--
			3.4	--	--	25.00
OCT 30, 75	1330	6	.3	30	--	--
			4.0	--	--	45.00
						LINE 147
OCT 31, 75	0840	2	.3	30	--	--
			3.4	--	--	100.00

TABLE 9E--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 38					
OCT 30, 75	1040	2	.9	--	.0	--	.0	--	.0	--	.0
						LINE 53					
OCT 30, 75	1005	2	1.2	--	.0	--	.0	--	.0	--	.0
						LINE 108					
OCT 30, 75	1415	2	12.2	--	.0	--	.0	--	.0	--	.0
						LINE 127					
OCT 30, 75	1140	2	3.4	--	.0	--	.0	--	.0	--	.0
OCT 30, 75	1330	6	4.0	--	.0	--	.0	--	.0	--	.0
						LINE 147					
OCT 31, 75	0840	2	3.4	--	.0	--	.0	--	.0	--	.0

TABLE 9E--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 38					
OCT 30, 75	1040	2	.9	--	.0	--	.0	--	.0	--	.0
						LINE 53					
OCT 30, 75	1005	2	1.2	--	.0	--	.0	--	.0	--	.0
						LINE 108					
OCT 30, 75	1415	2	12.2	--	.0	--	.0	--	.0	--	.0
						LINE 127					
OCT 30, 75	1140	2	3.4	--	.0	--	.0	--	.0	--	.0
OCT 30, 75	1330	6	4.0	--	.0	--	.0	--	.0	--	.0
						LINE 147					
OCT 31, 75	0840	2	3.4	--	.0	--	.0	--	.0	--	.0

TABLE 9E--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTA-CHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARA-THION (UG/L)	TOTAL METHYL PARA-THION (UG/L)	TOTAL MALA-THION (UG/L)	TOTAL DIAZ-INON (UG/L)
						LINE 38					
OCT 30, 75	1040	2	.9	--	.0	--	.0	--	--	--	--
						LINE 53					
OCT 30, 75	1005	2	1.2	--	.0	--	.0	--	--	--	--
						LINE 108					
OCT 30, 75	1415	2	12.2	--	.0	--	.0	--	--	--	--
						LINE 127					
OCT 30, 75	1140	2	3.4	--	.0	--	.0	--	--	--	--
OCT 30, 75	1330	6	4.0	--	.0	--	.0	--	--	--	--
						LINE 147					
OCT 31, 75	0840	2	3.4	--	.0	--	.0	--	--	--	--

TABLE 9E--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 38					
OCT 30, 75	1040	2	.3	--	--	.00	--	.00	--	.00	--
			.9	--	.0	--	--	--	--	--	--
						LINE 53					
OCT 30, 75	1005	2	.3	--	--	.00	--	.00	--	.00	--
			1.2	--	.0	--	--	--	--	--	--
						LINE 108					
OCT 30, 75	1415	2	.3	--	--	.00	--	.00	--	.00	--
			12.2	--	.0	--	--	--	--	--	--
						LINE 127					
OCT 30, 75	1140	2	.3	--	--	.00	--	.00	--	.00	--
			3.4	--	.0	--	--	--	--	--	--
OCT 30, 75	1330	6	.3	--	--	.00	--	.00	--	.00	--
			4.0	--	.0	--	--	--	--	--	--
						LINE 147					
OCT 31, 75	0840	2	.3	--	--	.00	--	.00	--	.00	--
			3.4	--	.0	--	--	--	--	--	--

TABLE 9E--QUALITY OF WATER IN THE NUECES ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION (UG/KG)
						LINE 38					
OCT 30, 75	1040	2	.9	--	0.	--	.0	--	.0	--	--
						LINE 53					
OCT 30, 75	1005	2	1.2	--	0.	--	.0	--	.0	--	--
						LINE 108					
OCT 30, 75	1415	2	12.2	--	0.	--	.0	--	.0	--	--
						LINE 127					
OCT 30, 75	1140	2	3.4	--	0.	--	.0	--	.0	--	--
OCT 30, 75	1330	6	4.0	--	0.	--	--	--	--	--	--
						LINE 147					
OCT 31, 75	0840	2	3.4	--	0.	--	.0	--	.0	--	--

Laguna Madre Estuary

The Laguna Madre estuary, which has an area of about 640 square miles (1,658 km^2), consists of the tidal parts of Arroyo Colorado and other tributaries, upper Laguna Madre, Baffin Bay, lower Laguna Madre, Brownsville Ship Channel, part of the Intracoastal Waterway, Port Mansfield Entrance Channel, and Brazos Santiago Pass (Figure 11). At mean low water, upper and lower Laguna Madre and Baffin Bay are generally less than 4 feet (1.2 m) deep, but in a few areas are as much as 10 feet (3.0 m) deep. The Intracoastal Waterway, Port Mansfield Channel, and Arroyo Colorado are about 15 feet (4.6 m) deep; and the Brownsville Ship Channel is about 40 feet (12.2 m) deep.

Water-quality data (Table 10) were collected in October 1975 and February and August 1976.

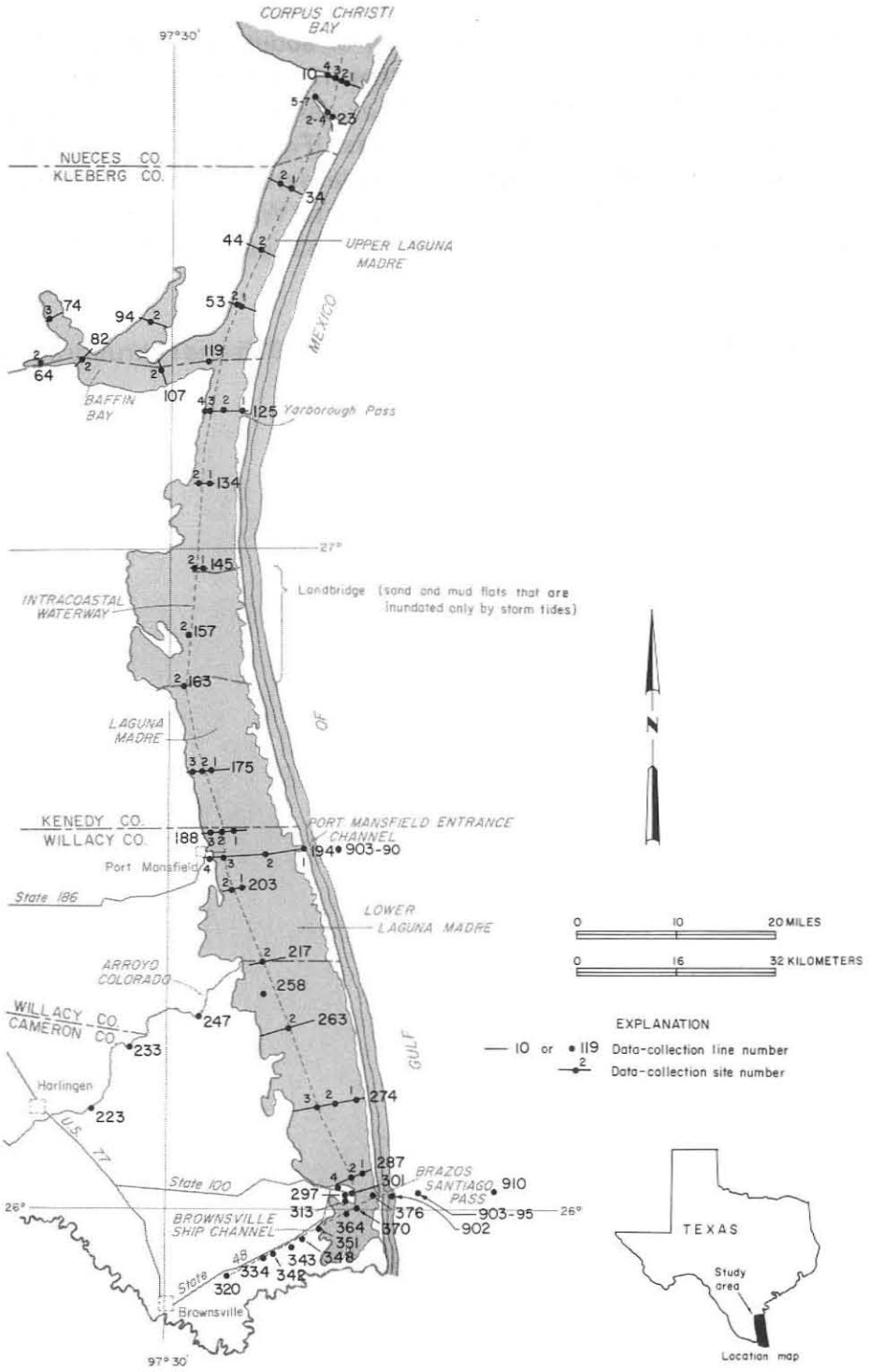

Figure 11

Data-Collection Sites in the Laguna Madre Estuary

Base by U.S. Geological Survey, 1956

TABLE 10A--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
						LINE 23				
FEB 11, 76	1245	3	.3	51000	20.3	8.2	5.9	79	0.	120
			1.5	51000	20.1	8.2	6.4	85	0.	--
			3.0	51000	20.0	8.2	6.4	85	0.	--
			4.6	51000	20.0	8.2	6.4	85	0.	--
			7.0	51000	20.2	8.2	6.3	84	10.	--
AUG 26, 76	1510	3	.3	51000	29.9	8.2	4.1	68	--	110
			1.5	51000	29.4	8.2	3.7	61	--	--
			3.0	51000	29.2	8.2	3.6	58	--	--
			6.4	50000	29.2	8.2	3.4	55	--	--
AUG 26, 76	1525	6	.3	48000	31.2	7.9	5.4	89	--	120
			1.8	48000	31.1	8.3	4.8	80	--	--
						LINE 53				
AUG 26, 76	1355	1	.3	51000	30.2	8.3	5.9	99	--	72
			1.5	51000	29.6	8.3	5.8	95	--	--
OCT 30, 75	1330	2	.3	59000	24.0	8.2	6.9	103	175.	101
			1.5	59000	23.9	8.1	6.8	101	50.	--
			3.0	59000	23.8	8.1	5.7	85	375.	--
			4.6	58000	24.3	8.3	5.4	81	170.	--
FEB 11, 76	1125	2	.3	59000	19.7	8.1	6.4	89	0.	108
			1.8	59000	19.4	8.1	6.1	85	10.	--
			4.0	59000	19.6	8.1	5.9	82	10.	--
AUG 26, 76	1345	2	.3	51000	29.5	8.3	5.8	95	--	71
			1.5	51000	29.0	8.3	5.1	83	--	--
			4.3	51000	28.9	8.2	3.6	58	--	--
						LINE 74				
OCT 29, 75	1245	3	.3	53000	24.6	8.1	7.6	112	40.	108
			1.5	53000	24.3	7.9	6.7	97	35.	--
FEB 11, 76	1245	3	.3	62000	19.5	8.0	6.7	94	--	62
			1.2	62000	19.5	8.0	6.4	90	--	--
						LINE 107				
OCT 29, 75	1150	2	.3	58000	24.2	8.1	7.3	109	20.	88
			1.5	58000	24.1	8.1	6.8	101	20.	--
			2.4	58000	24.2	7.8	4.0	60	30.	--
FEB 11, 76	1215	2	.3	60000	19.1	8.2	6.3	86	--	94
			1.8	60000	18.4	8.4	5.7	77	--	--
FEB 11, 76	1050	2	.3	63000	19.0	8.1	7.3	101	10.	90
			1.8	61000	19.0	8.1	6.6	92	0.	--
AUG 26, 76	1305	2	.3	40000	29.7	8.3	6.4	99	--	74
			2.1	44000	29.8	8.3	3.8	60	--	--
						LINE 125				
OCT 30, 75	1230	1	.3	53000	23.7	8.1	7.3	106	55.	68
			1.8	51000	24.5	8.5	5.8	84	70.	--
FEB 11, 76	1010	1	.3	63000	18.6	8.1	4.7	66	35.	66
			.9	63000	18.9	8.0	4.4	62	65.	--

TABLE 10A--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
				LINE 125 CONTINUED						
AUG 26, 76	1200	1	.3	48000	29.1	8.3	4.7	76	--	88
			1.5	48000	28.6	8.3	3.3	53	--	--
FEB 11, 76	1000	2	.3	63000	18.4	8.3	7.1	99	0.	91
			1.8	60000	18.8	8.3	6.8	93	10.	--
FEB 11, 76	1020	3	.3	63000	18.5	8.3	6.7	93	10.	105
			1.8	63000	18.3	8.3	6.5	90	10.	--
			4.0	61000	18.5	8.3	6.1	84	5.	--
AUG 26, 76	1215	3	.3	48000	29.0	8.3	5.4	87	--	94
			1.5	51000	29.1	8.3	5.1	82	--	--
			4.6	51000	28.7	8.2	3.6	58	--	--
AUG 26, 76	1225	4	.3	48000	29.4	8.3	5.5	89	--	96
			2.1	48000	29.1	8.3	5.1	83	--	--
				LINE 157						
OCT 30, 75	1110	2	.3	51000	24.4	8.5	6.9	100	50.	73
			1.5	51000	24.3	8.5	6.9	99	60.	--
			3.0	51000	24.3	8.5	6.8	97	60.	--
			4.9	51000	24.8	9.0	6.5	96	45.	--
FEB 11, 76	0845	2	.3	58000	19.8	8.3	5.6	78	10.	96
			1.5	58000	19.7	8.3	5.5	75	10.	--
			3.0	58000	19.7	8.3	5.5	75	15.	--
			4.6	58000	19.7	8.3	5.5	75	0.	--
AUG 26, 76	1045	2	.3	45000	28.5	8.4	5.1	81	--	94
			1.5	45000	28.3	8.4	5.0	79	--	--
			4.6	45000	28.2	8.4	4.5	71	--	--
				LINE 188						
OCT 30, 75	0930	1	.5	42000	23.5	8.2	6.2	86	25.	72
			1.2	42000	23.6	8.2	6.2	86	25.	--
FEB 11, 76	0745	1	.3	54000	17.7	8.4	7.3	96	20.	72
			1.2	54000	17.7	8.3	7.2	95	20.	--
AUG 26, 76	0930	1	.3	52000	27.5	7.5	5.7	91	--	114
			1.5	52000	27.6	7.5	5.2	83	--	--
OCT 30, 75	0940	2	.3	40000	23.9	8.4	6.6	90	50.	52
			1.5	42000	23.6	8.3	5.7	79	145.	--
			3.7	42000	23.5	8.2	5.1	71	105.	--
FEB 11, 76	0730	2	.3	54000	17.7	8.4	7.2	95	10.	56
			1.5	55000	17.6	8.3	7.2	95	15.	--
			3.4	56000	17.3	8.3	7.1	92	15.	--
AUG 26, 76	0915	2	.3	51000	27.6	8.5	5.7	91	--	87
			1.5	51000	27.6	8.4	5.1	81	--	--
			4.0	51000	27.8	8.4	3.7	59	--	--
OCT 30, 75	0955	3	.3	40000	24.3	8.5	6.6	90	35.	64
			1.5	40000	24.0	8.3	7.1	97	50.	--
FEB 11, 76	0725	3	.3	51000	17.8	8.3	7.1	91	20.	51
			.9	52000	17.4	8.3	6.8	87	20.	--
AUG 26, 76	0905	3	.3	48000	27.4	8.6	5.2	81	--	74
			1.5	48000	27.6	8.6	4.8	74	--	--
				LINE 194						
OCT 30, 75	0825	2	.3	41000	24.0	8.9	4.9	67	30.	79

TABLE 10A--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 194 CONTINUED					
OCT 30, 75	0825	2	1.5	42000	24.0	8.9	4.8	67	25.	--
			3.0	42000	24.0	8.9	4.8	67	30.	--
			5.8	40000	23.9	8.8	5.0	68	40.	--
FEB 10, 76	1440	2	.3	51000	19.4	8.4	7.5	99	5.	64
			2.4	51000	19.4	8.4	7.4	97	5.	--
			4.9	50000	19.6	8.4	7.4	97	5.	--
AUG 25, 76	1445	2	.3	56000	27.3	8.3	5.9	96	--	104
			1.5	56000	27.3	8.3	5.7	94	--	--
			3.0	56000	27.1	8.3	5.7	91	--	--
			8.2	56000	27.0	8.3	5.7	91	--	--
					LINE 217					
OCT 29, 75	1735	2	.3	35000	25.1	8.5	7.5	101	35.	71
			1.5	39000	23.8	8.2	6.5	88	80.	--
			3.0	39000	23.7	8.2	6.4	86	45.	--
			4.6	30000	24.6	8.5	6.8	91	75.	--
FEB 10, 76	1350	2	.3	42000	20.0	8.4	8.2	105	--	49
			1.5	42000	19.7	8.4	8.0	100	--	--
			3.0	42000	19.6	8.4	7.9	99	25.	--
			4.6	42000	19.8	8.3	8.0	103	20.	--
AUG 25, 76	1330	2	.3	10000	27.5	8.3	9.3	124	--	68
			.9	11000	27.6	8.3	8.0	106	--	--
			1.5	30000	27.8	8.3	4.2	62	--	--
			4.6	46000	28.2	8.4	2.3	36	--	--
					LINE 247					
OCT 29, 75	1610	2	.3	11000	25.1	8.4	10.0	122	35.	56
			1.5	26000	23.6	7.8	1.3	16	40.	--
			3.0	30000	22.6	7.7	1.0	13	20.	--
			4.9	31000	22.9	7.7	.9	12	30.	--
FEB 10, 76	1215	2	.3	24000	19.2	8.3	11.4	131	25.	61
			1.5	24000	19.0	8.3	10.6	122	15.	--
			1.8	27000	18.3	8.2	6.5	76	15.	--
			4.0	41000	15.4	8.2	5.0	58	10.	--
AUG 25, 76	1220	2	.3	4000	28.1	7.9	5.5	72	--	77
			1.7	5000	28.1	7.9	5.1	67	--	--
			3.4	7000	28.6	7.9	4.1	54	--	--
					LINE 263					
OCT 29, 75	1525	2	.3	26000	24.8	8.0	9.3	121	45.	47
			1.5	33000	24.5	7.9	6.1	82	> 500.	--
			3.0	33000	24.6	8.0	6.2	84	120.	--
			4.9	33000	25.4	8.1	6.2	83	> 500.	--
FEB 10, 76	1125	2	.3	51000	19.4	8.4	7.7	101	35.	72
			2.1	51000	19.3	8.4	7.9	104	35.	--
			4.3	50000	19.6	8.4	7.6	100	60.	--
AUG 25, 76	1130	2	.3	51000	27.0	8.7	4.6	72	--	70
			2.3	51000	27.0	8.7	4.9	76	--	--
			4.6	51000	27.5	8.7	4.8	77	--	--
					LINE 274					
OCT 29, 75	1405	1	.6	48000	26.6	8.3	11.2	167	100.	61
AUG 25, 76	1050	1	.3	56000	27.6	8.5	6.1	100	--	50

TABLE 10A--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 274 CONTINUED					
AUG 25, 76	1050	1	.9	56000	27.8	8.5	6.0	99	--	--
OCT 29, 75	1345	2	.3	49000	25.5	8.0	7.3	107	15.	82
			1.5	51000	25.1	8.0	7.1	104	40.	--
			3.0	51000	25.3	7.9	5.6	82	25.	--
			4.6	48000	25.4	7.9	5.1	74	115.	--
FEB 10, 76	1055	2	.3	41000	17.8	8.3	8.3	101	100.	39
			.9	39000	17.9	8.3	8.1	99	200.	--
AUG 25, 76	1045	2	.3	60000	27.8	8.6	6.0	100	--	--
			1.2	60000	28.0	8.6	5.9	99	--	--
OCT 29, 75	1335	3	.3	45000	25.7	6.5	7.0	101	310.	62
			2.1	45000	25.9	6.5	7.0	103	50.	--
FEB 10, 76	1035	3	.3	42000	17.9	8.3	7.1	88	160.	33
			1.5	42000	18.0	8.3	6.8	84	225.	--
			3.0	43000	18.7	8.2	6.7	84	180.	--
AUG 25, 76	1030	3	.3	47000	27.7	8.3	6.2	96	--	--
			1.5	47000	27.7	8.4	6.2	96	--	--
			3.0	51000	29.7	8.3	5.7	93	--	--
					LINE 351					
OCT 29, 75	1115	2	.3	51000	24.9	8.6	6.7	99	30.	68
			1.5	51000	24.8	8.6	6.3	93	25.	--
			3.0	51000	24.9	8.6	6.0	88	20.	--
			4.6	51000	25.1	8.4	5.8	85	10.	--
			6.1	51000	25.4	8.2	5.8	85	20.	--
			7.6	51000	25.4	8.1	5.6	82	20.	--
			9.1	51000	25.4	8.1	5.2	76	20.	--
			11.6	51000	25.3	8.0	4.3	63	60.	--
FEB 10, 76	0820	2	.3	51000	17.1	8.3	7.2	91	20.	85
			3.0	51000	17.0	8.3	7.2	91	5.	--
			6.1	51000	17.0	8.3	7.2	91	10.	--
			11.0	51000	16.9	8.3	7.2	91	10.	--
AUG 25, 76	0845	2	.3	56000	27.2	8.6	5.7	91	--	92
			3.0	56000	27.2	8.6	5.7	91	--	--
			6.1	56000	27.1	8.5	5.7	91	--	--
			9.1	56000	27.1	8.6	5.7	91	--	--
			12.8	56000	27.1	8.6	5.7	91	--	--
					LINE 376					
OCT 29, 75	1130	2	.3	50000	25.7	7.9	5.2	78	25.	67
			1.5	50000	25.6	7.9	5.7	85	30.	--
			3.0	50000	25.4	8.0	5.7	84	15.	--
			4.6	50000	25.3	8.0	5.5	81	10.	--
			6.1	50000	25.3	8.1	5.4	79	10.	--
			7.6	50000	25.3	8.1	5.0	74	10.	--
			9.1	50000	25.3	8.3	5.1	75	0.	--
			11.3	51000	25.4	8.2	5.1	75	10.	--
FEB 10, 76	0835	2	.3	51000	17.5	8.3	7.3	94	5.	81
			3.0	51000	17.5	8.3	7.3	94	5.	--
			6.1	51000	17.5	8.3	7.3	94	5.	--
			9.4	51000	17.4	8.3	7.3	94	20.	--
AUG 25, 76	0855	2	.3	51000	28.7	8.6	5.3	86	--	57
			3.0	56000	27.4	8.6	5.7	94	--	--
			6.1	56000	27.1	8.6	5.8	94	--	--
			9.1	56000	27.1	8.6	5.7	91	--	--
			15.2	56000	27.1	8.6	5.8	94	--	--

TABLE 10A--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

FIELD DETERMINATIONS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (FIELD)	TEMPERATURE (DEG. C)	PH	DISSOLVED OXYGEN (MG/L)	PERCENT SATURATION	TURBIDITY (JTU)	TRANSPARENCY SECCHI DISK (CM)
					LINE 903					
AUG 25, 76	1500	90	.3	56000	28.1	8.2	6.8	112	--	730
			3.0	56000	28.1	8.2	7.0	114	--	--
			9.1	56000	28.0	8.2	6.9	113	--	--
			14.6	56000	28.2	8.2	7.2	118	--	--
OCT 29, 75	1200	95	.6	51000	26.0	8.1	6.2	93	10.	954
			1.5	51000	26.0	8.2	6.2	93	10.	--
			3.0	51000	25.9	8.2	6.2	93	15.	--
			6.1	51000	25.9	8.1	6.2	93	5.	--
			9.1	51000	25.9	8.0	6.1	91	10.	--
			12.2	51000	25.8	7.9	6.0	90	10.	--
			15.2	51000	25.6	7.8	4.6	69	20.	--
			17.4	51000	25.4	8.1	4.7	70	10.	--
FEB 10, 76	0855	95	.9	53000	17.0	8.3	7.5	96	5.	450
			3.0	53000	17.0	8.3	7.4	95	0.	--
			9.1	53000	16.9	8.3	7.3	94	15.	--
			15.2	53000	16.9	8.3	7.1	91	0.	--
AUG 25, 76	0930	95	.3	55000	28.3	8.4	6.1	100	--	105
			3.0	55000	28.2	8.4	6.1	99	--	--
			6.1	55000	27.9	8.4	6.3	101	--	--
			9.1	55000	27.6	8.4	6.4	103	--	--
			12.2	55000	27.1	8.3	6.5	104	--	--
			16.8	55000	27.1	6.5	6.9	110	--	--

TABLE 108--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SiO_2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD_2) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
						LINE 23						
FEB 11, 76	1245	3	.3	1.3	.00	.09	.00	--	.05	1.1	--	--
			7.0	--	.00	.08	.00	--	.05	1.0	--	--
AUG 26, 76	1510	3	.3	5.6	.00	.17	.01	--	.03	1.6	--	5.6
			6.4	--	.00	.22	.01	--	.10	1.1	--	--
						LINE 53						
AUG 26, 76	1355	1	.3	--	.00	.17	.01	--	.05	2.4	--	--
FEB 11, 76	1125	2	.3	--	.00	.12	.00	--	.05	.9	--	--
						LINE 74						
OCT 29, 75	1245	3	.3	9.0	.01	.30	.01	--	.15	--	--	10.0
FEB 11, 76	1245	3	.3	7.6	.00	.12	.01	--	.17	2.5	--	--
						LINE 107						
OCT 29, 75	1150	2	.3	--	.01	.17	.00	--	.08	2.5	--	11.0
FEB 11, 76	1050	2	.3	--	.00	.11	.01	--	.07	1.8	--	--
AUG 26, 76	1305	2	.3	--	.01	.11	.00	--	.04	1.6	--	5.9
						LINE 125						
FEB 11, 76	1000	2	.3	4.1	.00	.15	.01	--	.05	1.6	--	--
AUG 26, 76	1215	3	.3	7.9	.00	.16	.01	--	.03	1.7	--	3.4
						LINE 157						
OCT 30, 75	1110	2	.3	5.4	.00	.13	.00	--	.07	2.8	--	--
			4.9	--	.00	.13	.01	--	.07	3.1	--	--
FEB 11, 76	0845	2	.3	2.6	.00	.10	.00	--	.05	1.4	--	--
			4.6	--	.00	.14	.00	--	.05	1.0	--	--
AUG 26, 76	1045	2	.3	8.7	.00	.18	.01	--	.04	1.6	--	--
			4.6	--	.00	.16	.01	--	.04	1.3	--	--
						LINE 188						
OCT 30, 75	0955	3	.3	--	.00	.09	.01	--	.05	1.5	--	--
			1.5	--	.00	.09	.00	--	.05	1.4	--	--
FEB 11, 76	0725	3	.3	--	.00	.13	.01	--	.05	1.5	--	--
			.9	--	.00	.09	.00	--	.06	1.1	--	--
AUG 26, 76	0905	3	.3	--	.01	.21	.01	--	.04	1.3	--	5.6
			1.5	--	.00	.16	.01	--	.05	1.5	--	--
						LINE 194						
OCT 30, 75	0825	2	.3	4.4	.01	.09	.00	--	.05	2.7	--	--
			5.8	--	.00	.05	.01	--	.07	2.9	--	--
FEB 10, 76	1440	2	.3	2.0	.00	.10	.00	--	.06	1.0	--	--

TABLE 10B--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

NUTRIENT AND OTHER ENVIRONMENTAL CHARACTERISTICS

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED SILICA (SIO2) (MG/L)	TOTAL NITRATE (N) (MG/L)	AMMONIA NITROGEN (N) (MG/L)	TOTAL NITRITE (N) (MG/L)	DIS-SOLVED PHOS-PHORUS ORTHO (P) (MG/L)	TOTAL PHOS-PHORUS (P) (MG/L)	BIO-CHEMICAL OXYGEN DEMAND (BOD) (MG/L)	CHEMICAL OXYGEN DEMAND (COD) (MG/L)	TOTAL ORGANIC CARBON (MG/L)
					LINE 194 CONTINUED							
FEB 10, 76	1440	2	4.9	--	.00	.09	.00	--	.06	1.7	--	--
AUG 25, 76	1445	2	.3	5.9	.01	.21	.01	--	.04	1.3	--	--
			8.2	--	.00	.22	.01	--	.14	1.4	--	--
					LINE 247							
OCT 29, 75	1610	2	.3	24.0	.78	.05	.11	--	.20	6.2	--	--
			4.9	9.3	.06	.56	.03	--	.14	1.5	--	--
FEB 10, 76	1215	2	.3	16.0	.63	.74	.09	--	.60	8.3	--	--
			4.0	4.2	.07	.18	.01	--	.15	4.2	--	--
AUG 25, 76	1220	2	.3	15.0	.09	.32	.02	--	.14	1.3	--	2.6
			3.4	14.0	.08	.42	.02	--	.14	1.2	--	3.4
					LINE 263							
OCT 29, 75	1525	2	.3	--	.16	.04	.03	--	.09	3.0	--	6.4
			4.9	--	.04	.10	.02	--	.21	3.0	--	--
FEB 10, 76	1125	2	.3	--	.00	.06	.01	--	.05	1.2	--	--
			4.3	--	.00	.10	.01	--	.05	.8	--	--
AUG 25, 76	1130	2	.3	--	.04	.29	.01	--	.00	1.5	--	4.2
			4.6	--	.00	.21	.01	--	.06	1.3	--	--
					LINE 274							
OCT 29, 75	1405	1	.6	--	.01	.09	.00	--	.03	.5	--	--
AUG 25, 76	1050	1	.3	--	.00	.17	.01	--	.05	.5	--	2.4
FEB 10, 76	1055	2	.3	--	.00	.04	.00	--	.07	1.8	--	--
					LINE 376							
OCT 29, 75	1130	2	.3	--	.01	.10	.00	--	.05	.4	--	--
			11.3	--	.02	.12	.00	--	.05	.1	--	--
FEB 10, 76	0835	2	.3	--	.00	.06	.00	--	.05	1.0	--	--
			9.4	--	.00	.07	.00	--	.07	1.1	--	--
AUG 25, 76	0855	2	.3	--	.01	.15	.01	--	.05	.2	--	3.0
			15.2	--	.00	.16	.01	--	.07	.3	--	9.6
					LINE 903							
AUG 25, 76	1500	90	.3	--	.00	.20	.01	--	.03	.2	--	2.9
OCT 29, 75	1200	95	.6	.8	.01	.10	.00	--	.04	.5	--	--
			17.4	--	.04	.13	.01	--	.05	.3	--	--
FEB 10, 76	0855	95	.9	.4	.00	.07	.00	--	.04	.9	--	--
			15.2	--	.00	.05	.01	--	.04	.7	--	--
AUG 25, 76	0930	95	.3	--	.00	.11	.01	--	.02	.2	--	5.6
			16.6	.4	.00	.17	.01	--	.02	.2	--	4.6

TABLE 10C--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICROMHOS) (LAB)	DISSOLVED CALCIUM (CA) (MG/L)	DISSOLVED MAGNESIUM (MG) (MG/L)	DISSOLVED SODIUM + POTASSIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DISSOLVED SULFATE (SO4) (MG/L)	DISSOLVED CHLORIDE (CL) (MG/L)	DISSOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
						LINE 23					
FEB 11, 76	1245	3	.3	51000	450.0	1200.0	--	200	2600	19000	34700
			7.0	51700	--	--	--	--	--	--	--
AUG 26, 76	1510	3	.3	51400	460.0	1200.0	--	134	2600	19000	34700
			6.4	51500	--	--	--	--	--	--	--
						LINE 53					
AUG 26, 76	1355	1	.3	50400	--	--	--	--	--	--	--
FEB 11, 76	1125	2	.3	59700	--	--	--	--	--	--	--
						LINE 74					
OCT 29, 75	1245	3	.3	52900	410.0	1300.0	--	112	2700	18000	32900
FEB 11, 76	1245	3	.3	62500	570.0	1600.0	--	154	3200	23000	41900
						LINE 107					
OCT 29, 75	1150	2	.3	58400	--	--	--	--	--	--	--
FEB 11, 76	1050	2	.3	61400	--	--	--	--	--	--	--
AUG 26, 76	1305	2	.3	39700	--	--	--	--	--	--	--
						LINE 125					
FEB 11, 76	1000	2	.3	60700	540.0	1600.0	--	202	3300	24000	43000
AUG 26, 76	1215	3	.3	48500	430.0	1100.0	--	164	2400	17000	314000
						LINE 157					
OCT 30, 75	1110	2	.3	51100	480.0	1300.0	--	139	2500	18000	32800
			4.9	51200	--	--	--	--	--	--	--
FEB 11, 76	0845	2	.3	56200	520.0	1400.0	--	204	3200	20000	37600
			4.6	58500	--	--	--	--	--	--	--
AUG 26, 76	1045	2	.3	46000	410.0	1100.0	--	164	2400	16000	29900
			4.6	46100	--	--	--	--	--	--	--
						LINE 188					
OCT 30, 75	0955	3	.3	40200	--	--	--	--	--	--	--
			1.5	40200	--	--	--	--	--	--	--
FEB 11, 76	0725	3	.3	48300	--	--	--	--	--	--	--
			.9	54600	--	--	--	--	--	--	--
AUG 26, 76	0905	3	.3	49300	--	--	--	--	--	--	--
			1.5	49900	--	--	--	--	--	--	--
						LINE 194					
OCT 30, 75	0825	2	.3	40800	350.0	940.0	--	158	2200	14000	25800
			5.8	41600	--	--	--	--	--	--	--
FEB 10, 76	1440	2	.3	51100	460.0	1200.0	--	191	2800	19000	35000

TABLE 10C--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

CHEMICAL ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (LAB)	DIS-SOLVED CALCIUM (CA) (MG/L)	DIS-SOLVED MAGNE-SIUM (MG) (MG/L)	DIS-SOLVED SODIUM + POTAS-SIUM (NA+K) (MG/L)	BICARBONATE (HCO3) (MG/L)	DIS-SOLVED SULFATE (SO4) (MG/L)	DIS-SOLVED CHLORIDE (CL) (MG/L)	DIS-SOLVED SOLIDS (SUM OF CONSTITUENTS) (MG/L)
					LINE 194 CONTINUED						
FEB 10, 76	1440	2	4.9	52700	--	--	--	--	--	--	--
AUG 25, 76	1445	2	.3	55800	470.0	1300.0	--	150	2900	22000	39200
			8.2	55800	--	--	--	--	--	--	--
					LINE 247						
OCT 29, 75	1610	2	.3	11000	500.0	240.0	--	274	1100	3300	7150
			4.9	30700	380.0	770.0	--	192	1800	11000	20300
FEB 10, 76	1215	2	.3	21800	360.0	520.0	--	272	1400	6900	13500
			4.0	41500	430.0	1000.0	--	220	2400	15000	27500
AUG 25, 76	1220	2	.3	4010	97.0	83.0	--	153	380	1100	2410
			3.4	7020	130.0	130.0	--	159	460	1800	3750
					LINE 263						
OCT 29, 75	1525	2	.3	26400	--	--	--	--	--	--	--
			4.9	29200	--	--	--	--	--	--	--
FEB 10, 76	1125	2	.3	48700	--	--	--	--	--	--	--
			4.3	52400	--	--	--	--	--	--	--
AUG 25, 76	1130	2	.3	47500	--	--	--	--	--	--	--
			4.6	51000	--	--	--	--	--	--	--
					LINE 274						
OCT 29, 75	1405	1	.6	49100	--	--	--	--	--	--	--
AUG 25, 76	1050	1	.3	56200	--	--	--	--	--	--	--
FEB 10, 76	1055	2	.3	4510	--	--	--	--	--	--	--
					LINE 376						
OCT 29, 75	1130	2	.3	49800	--	--	--	--	--	--	--
			11.3	51300	--	--	--	--	--	--	--
FEB 10, 76	0835	2	.3	51400	--	--	--	--	--	--	--
			9.4	50800	--	--	--	--	--	--	--
AUG 25, 76	0855	2	.3	50200	--	--	--	--	--	--	--
			15.2	55400	--	--	--	--	--	--	--
					LINE 903						
AUG 25, 76	1500	90	.3	55800	--	--	--	--	--	--	--
OCT 29, 75	1200	95	.6	51400	420.0	1300.0	--	148	2600	18000	32800
			17.4	52900	--	--	--	--	--	--	--
FEB 10, 76	0855	95	.9	52100	410.0	1300.0	--	152	2700	20000	35900
			15.2	52600	--	--	--	--	--	--	--
AUG 25, 76	0930	95	.3	55500	--	--	--	--	--	--	--
			16.8	55700	440.0	1300.0	--	150	2700	22000	38900

TABLE 10D--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ALUMI-NUM (AL) (UG/L)	DIS-SOLVED ARSENIC (AS) (UG/L)	TOTAL ARSENIC (AS) (UG/L)	BOTTOM DEPOSIT ARSENIC (AS) (UG/GM)	DIS-SOLVED CAD-MIUM (CD) (UG/L)	TOTAL CADMIUM (CD) (UG/L)	BOTTOM DEPOSIT CADMIUM (CD) (UG/GM)
						LINE 74				
OCT 29, 75	1245	3	1.5	--	--	--	2	--	--	< 10.00
						LINE 107				
OCT 29, 75	1150	2	2.4	--	--	--	2	--	--	< 10.00
						LINE 188				
OCT 30, 75	0955	3	.3	30	1	--	--	3	--	--
			1.5	--	--	--	0	--	--	< 10.00
						LINE 274				
OCT 29, 75	1405	1	.6	20	0	--	3	0	--	< 10.00

TABLE 10D--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DISSOLVED CHROMIUM (CR) (UG/L)	TOTAL CHROMIUM (CR) (UG/L)	DISSOLVED COBALT (CO) (UG/L)	TOTAL COBALT (CO) (UG/L)	BOTTOM DEPOSIT COBALT (CO) (UG/GM)	DISSOLVED COPPER (CU) (UG/L)	TOTAL COPPER (CU) (UG/L)	BOTTOM DEPOSIT COPPER (CU) (UG/GM)
						LINE 74					
OCT 29, 75	1245	3	1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 107					
OCT 29, 75	1150	2	2.4	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 188					
OCT 30, 75	0955	3	.3	.00	--	0	--	--	7	--	--
			1.5	--	--	--	--	< 10.00	--	--	< 10.00
						LINE 274					
OCT 29, 75	1405	1	.6	.00	--	0	--	< 10.00	7	--	< 10.00

TABLE 10D--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED CYANIDE (CN) (MG/L)	BOTTOM DEPOSIT CYANIDE (CN) (UG/GM)	DIS-SOLVED IRON (FE) (UG/L)	TOTAL IRON (FE) (UG/L)	BOTTOM DEPOSIT IRON (FE) (UG/GM)	DIS-SOLVED LEAD (PB) (UG/L)	TOTAL LEAD (PB) (UG/L)	BOTTOM DEPOSIT LEAD (PB) (UG/GM)
						LINE 74					
OCT 29, 75	1245	3	1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 107					
OCT 29, 75	1150	2	2.4	--	.0	--	--	--	--	--	< 10.00
						LINE 188					
OCT 30, 75	0955	3	.3	--	--	80	--	--	23	--	--
			1.5	--	.0	--	--	--	--	--	< 10.00
						LINE 274					
OCT 29, 75	1405	1	.6	--	.0	80	--	--	14	--	< 10.00

TABLE 10D--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED LITH-IUM (LI) (UG/L)	DIS-SOLVED MAN-GANESE (MN) (UG/L)	TOTAL MAN-GANESE (MN) (UG/L)	BOTTOM DEPOSIT MAN-GANESE (MN) (UG/GM)	DIS-SOLVED MER-CURY (HG) (UG/L)	TOTAL MER-CURY (HG) (UG/L)	BOTTOM DEPOSIT MER-CURY (HG) (UG/GM)	DIS-SOLVED NICKEL (NI) (UG/L)	DIS-SOLVED STRON-TIUM (SR) (UG/L)
						LINE 74						
OCT 29, 75	1245	3	1.5	--	--	--	50	--	--	.2	--	--
						LINE 107						
OCT 29, 75	1150	2	2.4	--	--	--	230	--	--	.2	--	--
						LINE 188						
OCT 30, 75	0955	3	.3	160	90	--	--	.1	--	--	0	3300
			1.5	--	--	--	80	--	--	.1	--	--
						LINE 274						
OCT 29, 75	1405	1	.6	140	90	--	290	.1	--	.3	0	3000

TABLE 10D--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

SELECTED IONS ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	DIS-SOLVED ZINC (ZN) (UG/L)	TOTAL ZINC (ZN) (UG/L)	BOTTOM DEPOSIT ZINC (ZN) (UG/GM)
						LINE 74
OCT 29, 75	1245	3	1.5	--	--	20.00
						LINE 107
OCT 29, 75	1150	2	2.4	--	--	25.00
						LINE 188
OCT 30, 75	0955	3	.3	40	--	--
			1.5	--	--	80.00
						LINE 274
OCT 29, 75	1405	1	.6	30	--	30.00

TABLE 10E--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL ALDRIN (UG/L)	BOTTOM DEPOSIT ALDRIN (UG/KG)	TOTAL CHLOR-DANE (UG/L)	BOTTOM DEPOSIT CHLOR-DANE (UG/KG)	TOTAL DDD (UG/L)	BOTTOM DEPOSIT DDD (UG/KG)	TOTAL DDE (UG/L)	BOTTOM DEPOSIT DDE (UG/KG)
						LINE 74					
OCT 29, 75	1245	3	1.5	--	.0	--	.0	--	.0	--	.1
						LINE 107					
OCT 29, 75	1150	2	2.4	--	.0	--	.0	--	.0	--	.0

TABLE 10E--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL DDT (UG/L)	BOTTOM DEPOSIT DDT (UG/KG)	TOTAL DIEL-DRIN (UG/L)	BOTTOM DEPOSIT DIEL-DRIN (UG/KG)	TOTAL ENDRIN (UG/L)	BOTTOM DEPOSIT ENDRIN (UG/KG)	TOTAL HEPTA-CHLOR (UG/L)	BOTTOM DEPOSIT HEPTA-CHLOR (UG/KG)
						LINE 74					
OCT 29, 75	1245	3	1.5	--	.0	--	.0	--	.0	--	.0
						LINE 107					
OCT 29, 75	1150	2	2.4	--	.0	--	.0	--	.0	--	.0

TABLE 10E--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL HEPTACHLOR EPOXIDE (UG/L)	BOTTOM DEPOSIT HEPTACHLOR EPOXIDE (UG/KG)	TOTAL LINDANE (UG/L)	BOTTOM DEPOSIT LINDANE (UG/KG)	TOTAL PARATHION (UG/L)	TOTAL METHYL PARATHION (UG/L)	TOTAL MALATHION (UG/L)	TOTAL DIAZINON (UG/L)
						LINE 74					
OCT 29, 75	1245	3	1.5	--	.0	--	.0	--	--	--	--
						LINE 107					
OCT 29, 75	1150	2	2.4	--	.0	--	.0	--	--	--	--

TABLE 10E--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL PCB (UG/L)	BOTTOM DEPOSIT PCB (UG/KG)	TOTAL 2,4-D (UG/L)	BOTTOM DEPOSIT 2,4-D (UG/KG)	TOTAL 2,4,5-T (UG/L)	BOTTOM DEPOSIT 2,4,5-T (UG/KG)	TOTAL SILVEX (UG/L)	BOTTOM DEPOSIT SILVEX (UG/KG)
						LINE 74					
OCT 29, 75	1245	3	.3	--	--	.00	--	.00	--	.00	--
			1.5	--	.0	--	--	--	--	--	--
						LINE 107					
OCT 29, 75	1150	2	.3	--	--	.00	--	.00	--	.00	--
			2.4	--	.0	--	--	--	--	--	--
						LINE 188					
OCT 30, 75	0955	3	.3	--	--	.00	--	.00	--	.00	--
						LINE 274					
OCT 29, 75	1405	1	.6	--	--	.00	--	.00	--	.00	--

TABLE 10E--QUALITY OF WATER IN THE LAGUNA MADRE ESTUARY,

1976 WATER YEAR--CONTINUED

INSECTICIDE AND HERBICIDE ANALYSES

DATE OF COLLECTION	TIME	SITE	DEPTH (METERS)	TOTAL TOXAPHENE (UG/L)	BOTTOM DEPOSIT TOXAPHENE (UG/KG)	TOTAL ETHION (UG/L)	BOTTOM DEPOSIT ETHION (UG/KG)	TOTAL METHYL TRITHION (UG/L)	BOTTOM DEPOSIT METHYL TRITHION (UG/KG)	TOTAL TRITHION (UG/L)	BOTTOM DEPOSIT TRITHION (UG/KG)
						LINE 74					
OCT 29, 75	1245	3	1.5	--	0.	--	.0	--	.0	--	--
						LINE 107					
OCT 29, 75	1150	2	2.4	--	0.	--	.0	--	.0	--	--
						LINE 188					
OCT 30, 75	0955	3	1.5	--	--	--	.0	--	.0	--	--
						LINE 274					
OCT 29, 75	1405	1	.6	--	--	--	.0	--	.0	--	--

Climatological Records

The climate of the region has a significant influence on the quality of the water in the estuaries. The types of climatological data available for an area about 60 miles (96.5 km) wide along the Texas coast are shown on Figure 12.

Tabulations of daily precipitation, air temperature, and other data are published monthly; and monthly summaries are published annually by the Environmental Science Services Administration in the series titled "Climatological Data-Texas." For the period 1931-60, monthly and annual data are summarized in two publications by the U.S. Weather Bureau (1958, 1965).

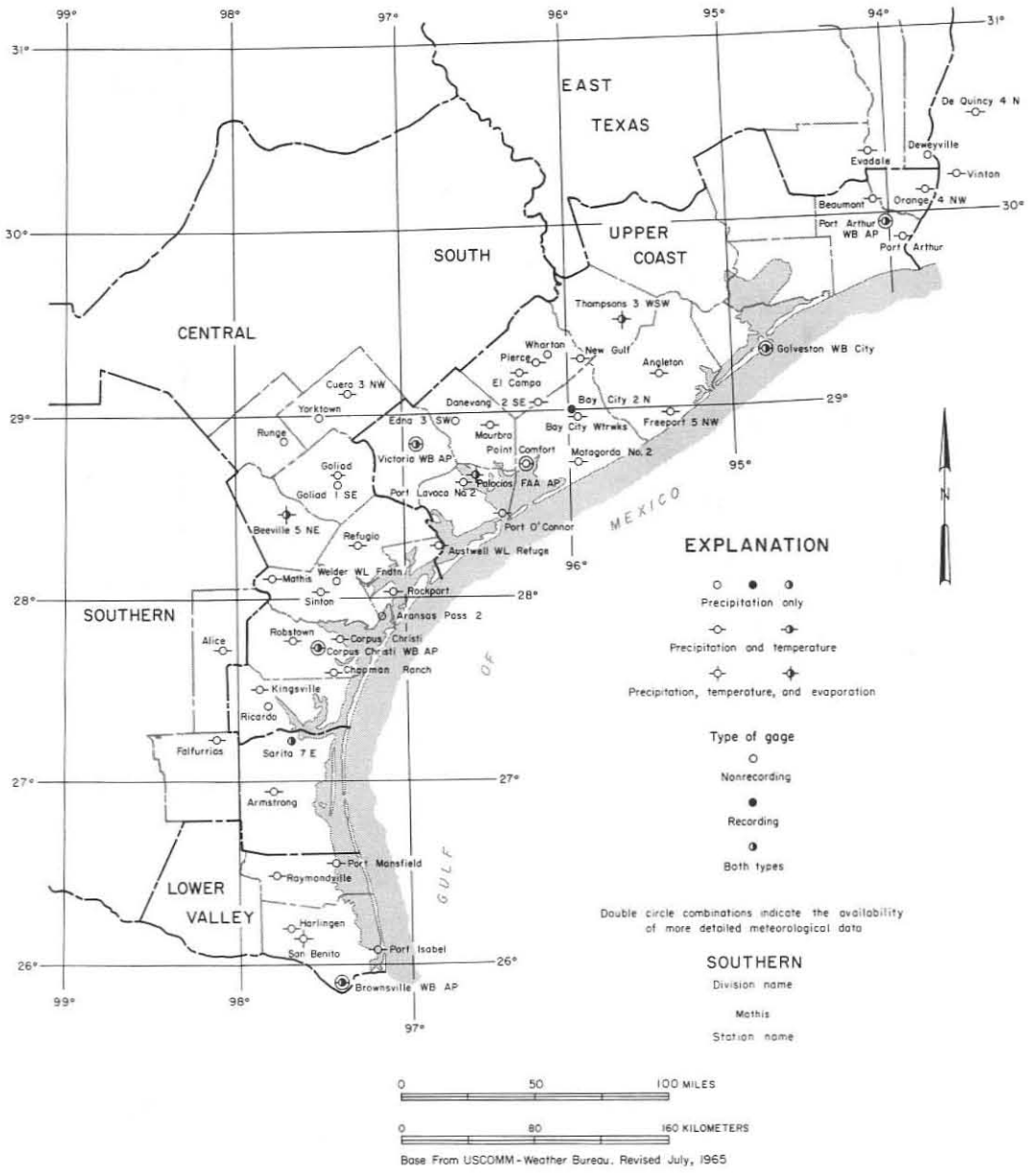

Figure 12.—Locations of Selected Climatological Stations

Streamflow and Water-Quality Records

Streams along the Texas coast flow across the flat coastal plain and are incised below sea level; therefore, changes in water stage within the bays are often reflected for many miles up the tributary streams. Consequently, the farthest downstream sites at which continuous streamflow data can be obtained are located many miles upstream from the principal estuarine embayments. The locations[1] of the sites at which continuous streamflow and daily water-quality data are available are shown on Figure 13.

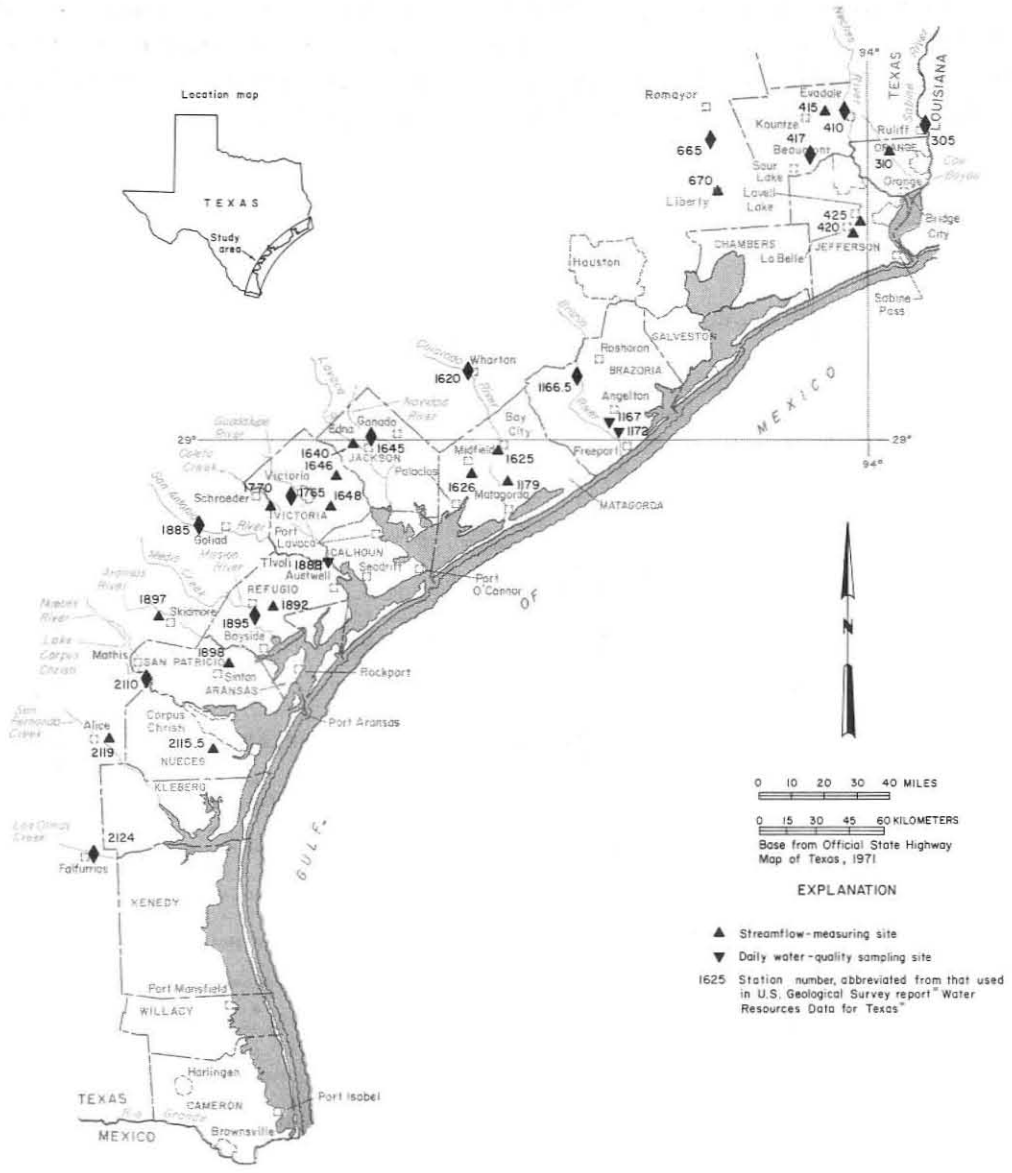

Figure 13.—Locations of Streamflow-Measuring Sites and Daily Water-Quality Data-Collection Sites

[1]Station numbers greater than 300 are abbreviated from the U.S. Geological Survey numbering system. For example, the two station numbers 08041500 and 08162650, in abbreviated form become 415 and 1626.5.

The streamflow data for these sites represent runoff reaching the coastal area, but do not describe all of the flow from streams that enter the estuaries. Intervening drainage, diversion for irrigation, return flows, and evapotranspiration may influence streamflow between the measuring sites and the estuaries.

Analyses of water collected daily at streamflow-measuring sites show the effects of geology and cultural development on runoff from the drainage basins. At times, however, return flows from irrigation, evapotranspiration, and lack of significant runoff from areas upstream result in altered water quality between the data-collection site and the estuary.

The drainage areas from which unmeasured runoff enters the estuaries range from less than 100 square miles (260 km^2) to more than 10,000 square miles (25,900 km^2). Periodic measurements indicate that during some seasons, unmeasured runoff that reaches the estuaries exceeds measured flow from the major tributaries.

To completely describe the quality and quantity of runoff from the entire area between continuous streamflow-measuring stations and the estuaries is not feasible; however, representative data are collected periodically at the sites shown on Figure 14.

Both continuous- and periodic-streamflow and chemical-quality data are published by the U.S. Geological Survey (1976).

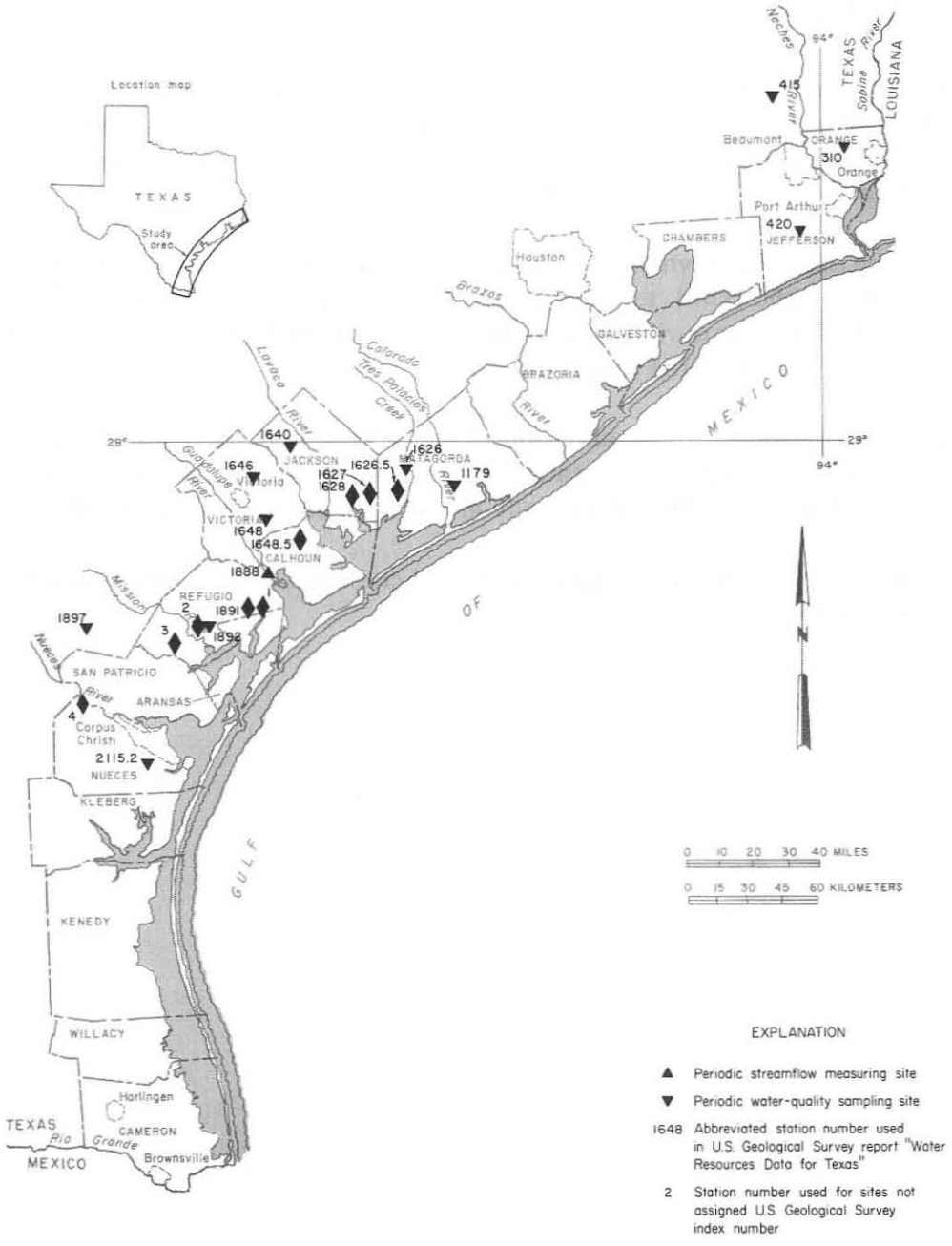

Figure 14

Location of Selected Water-Quality and Streamflow Data-Collection Sites

Base from Official State Highway Map of Texas, 1971

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